

FIG. 1

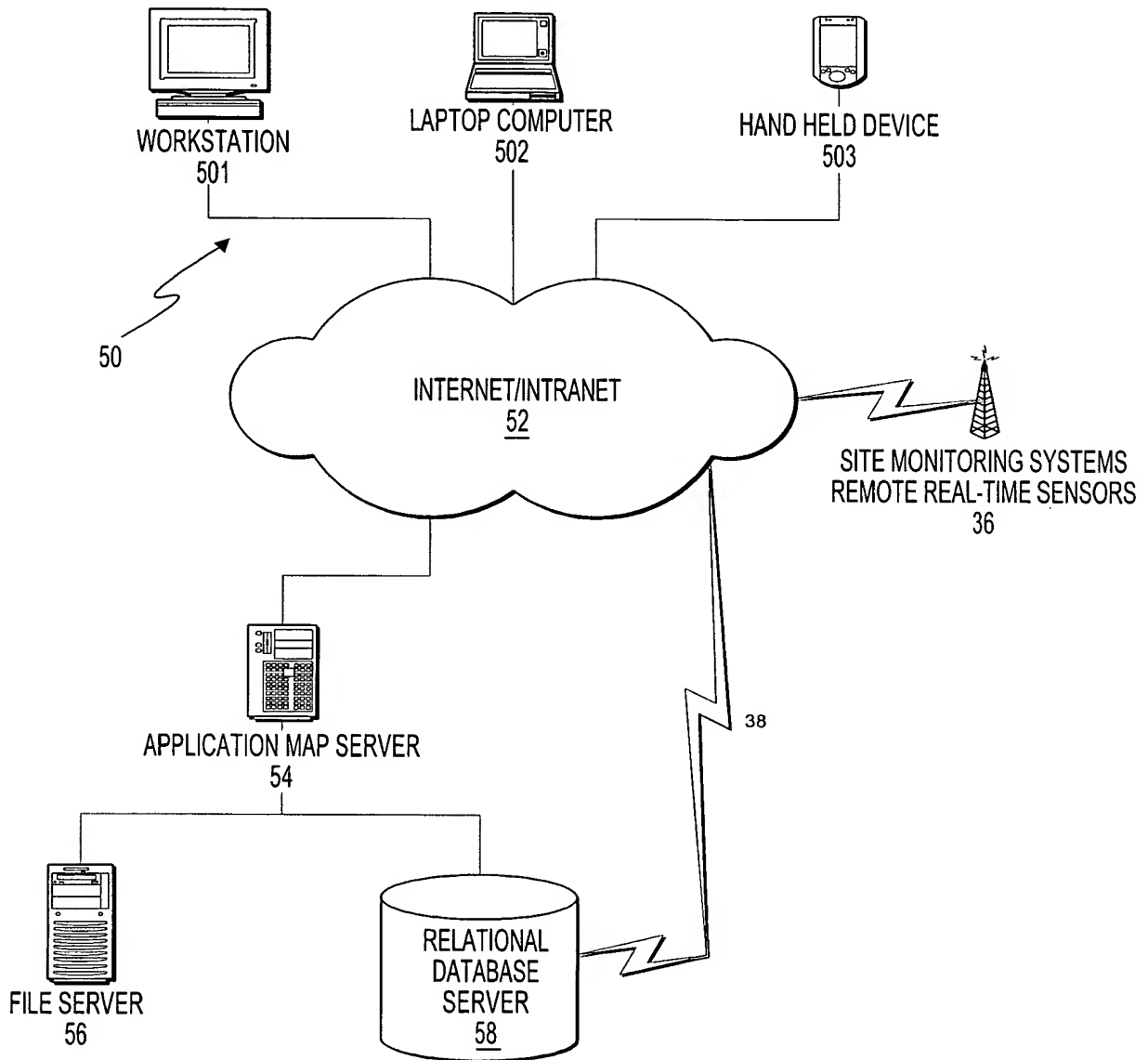


FIG. 2

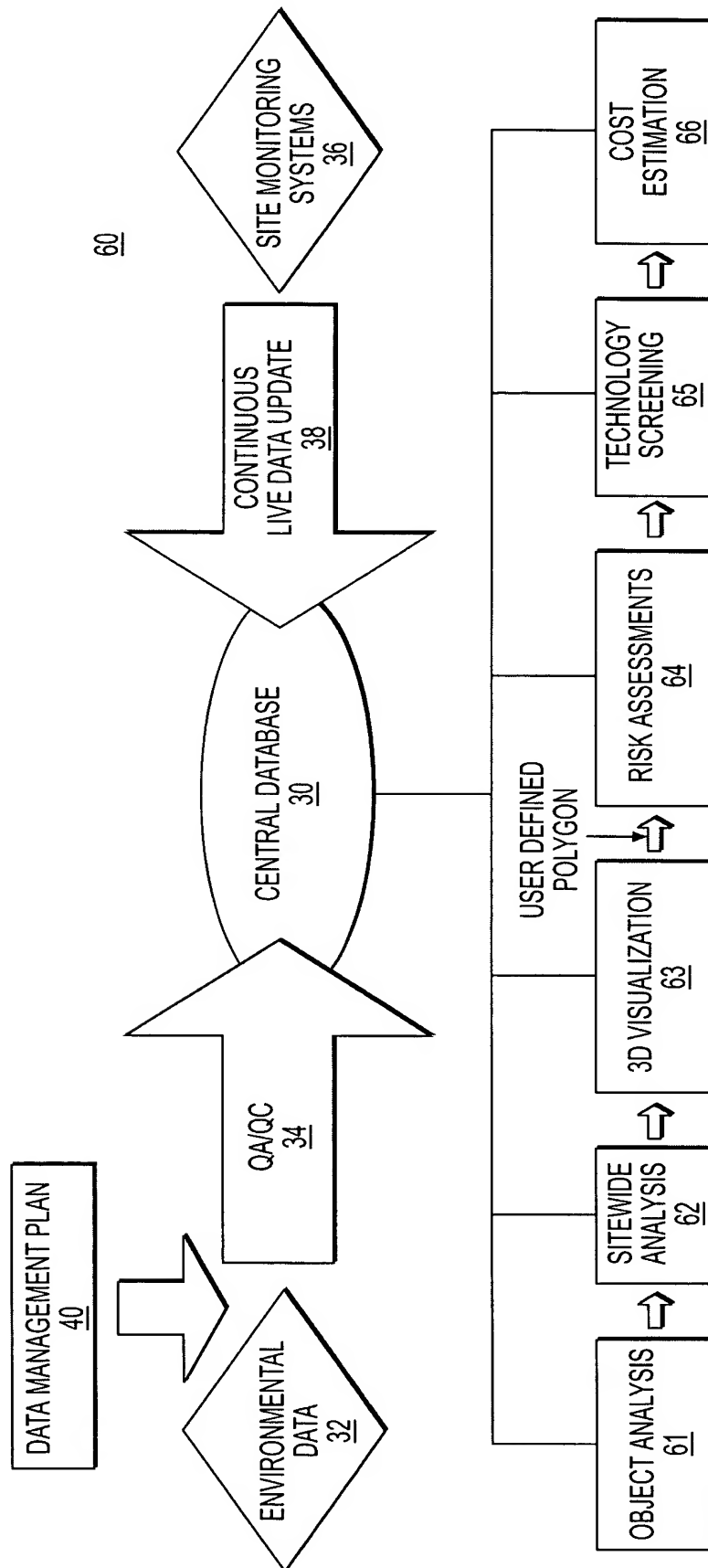
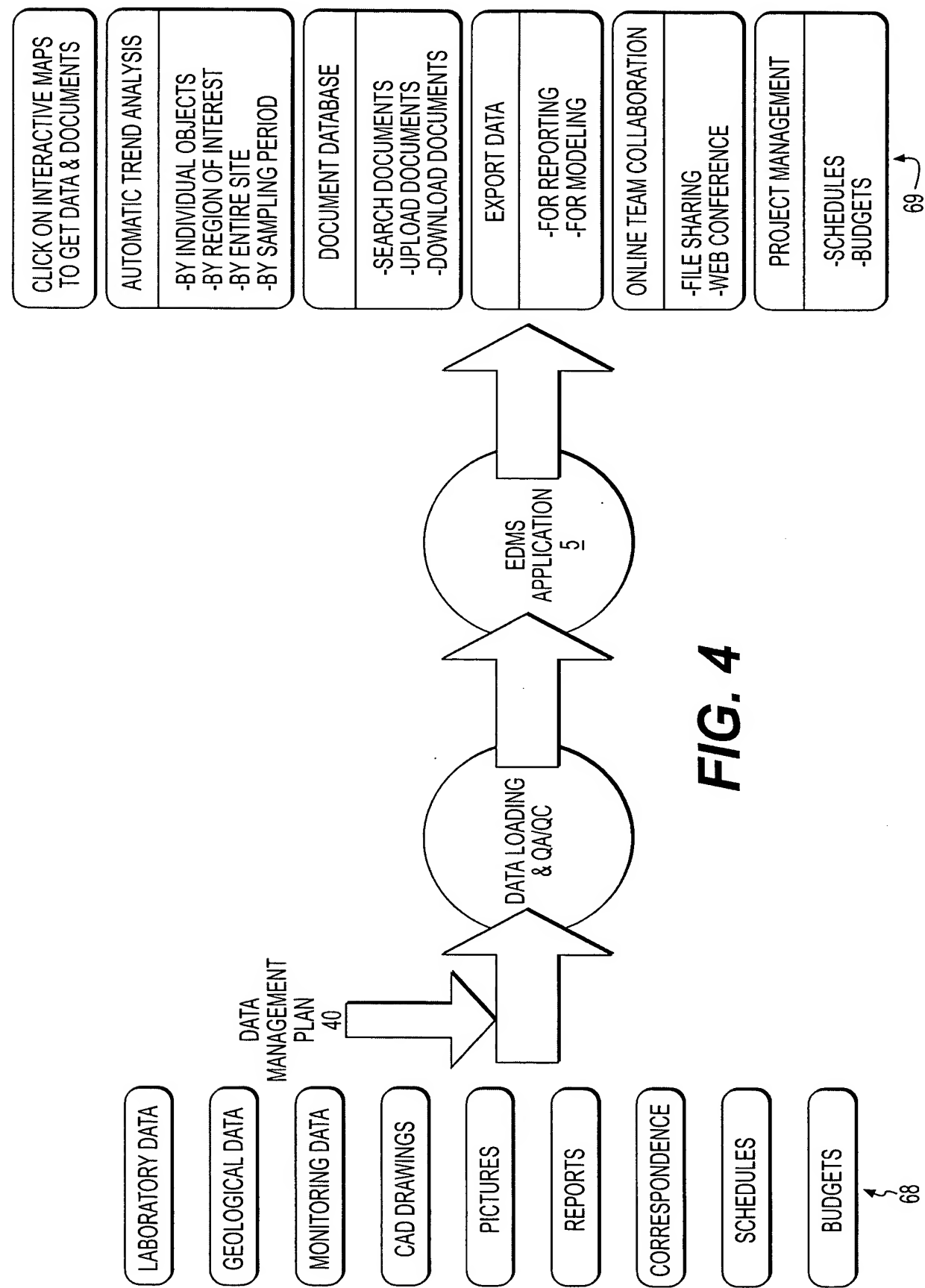


FIG. 3





90

WEBEDMS SYSTEM - MICROSOFT INTERNET EXPLORER

106

CONCENTRATION VS. TIME COMPARE TO STANDARD
OBJECT NAME: MW-24

CONCENTRATION (UNITS) ug/L

CHEMICAL NAME--BENZENE
STANDARD VALUE 1 ug/L

OBJECT NAME: MW-24

92

SELECT SAMPLE MATRIX (REQUIRED)
WG

94

SELECT DATA TIME DURATION:

START DATE: MM/DD/YYYY (OPTIONAL)
01/10/1990

96

END DATE: MM/DD/YYYY (OPTIONAL)
01/10/1990

☐ EXCLUDE NON-DETECT SAMPLES

SELECT SCREENING QUERY: 100

98

4. COMPARE ANALYTE CONCENTRATION TO REGULATORY STANDARD

REGULATORY STANDARD
CALDHS PRIMARY MCL

102

ANALYTE
71-43-2: BENZENE

104

GO

108

STANDARD
BELOW STANDARD
ABOVE STANDARD

RIGHT CLICK ON THE LINK BELOW AND SAVE THE FILE TO YOUR LOCAL DRIVE
EXCEL ANALYTICAL OUTPUT FILE
FOR ID: MW-24

QUERY RESULT DATA DISPLAY & DOWNLOAD

NUMBER OF RECORDS FOUND 31

DONE

INTERNET

FIG. 5b

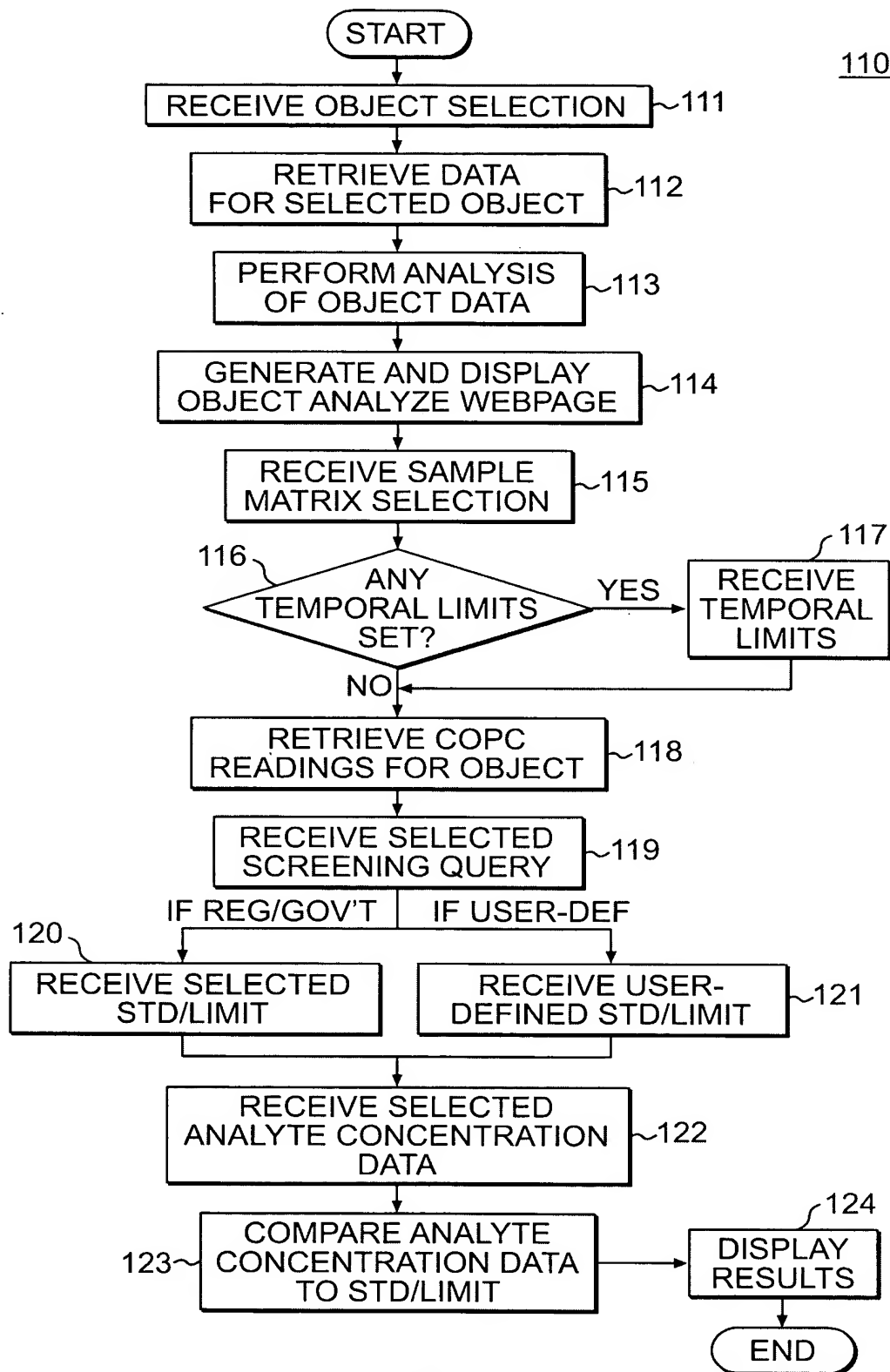


FIG. 5c

Inventor(s): Michael Y. YOUNG, et al.

Contact Name: Sean S. Wooden (202) 662-2700

Attorney Docket No.: 151877

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WEBEDMS DEMO SYSTEM - MICROSOFT INTERNET EXPLORER

INTEGRATED ENVIRONMENTAL SERVICES INC.

HOME | SUPPORT | DESI | GIS & DATA | PROJECT MGMT. | FILE MGMT. | COLLABORATION | CALENDAR

MICROSOFT PROJECT CENTRAL

ACTIONS | HOME | TASKS | VIEWS | STATUS REPORTS | OFFLINE | LOG OFF | HELP

VIEWS

OVERVIEW

VIEW YOUR PORTFOLIO

VIEW ASSIGNMENTS

ENVIRONMENTAL DATA MANAGEMENT SYSTEM 793 74

MONDAY, JANUARY 12, 2004

YOU ARE CURRENTLY LOGGED ON AS **CONTRACTOR 1**

CHOOSE A VIEW: [COST VIEW] [V]

SEE INFORMATION ABOUT MICROSOFT PROJECT CENTRAL ASSIGNMENTS

YOU CAN SEE ASSIGNMENTS THAT HAVE BEEN MADE USING MICROSOFT PROJECT CENTRAL

YOU CAN ONLY SEE ASSIGNMENTS INFORMATION FOR RESOURCES THAT THE MICROSOFT PROJECT CENTRAL ADMINISTRATOR HAS GIVEN YOU PERMISSION TO VIEW

SHOW: ☒ SUMMARY TASKS ☐ SUMMARY ROLLUP ☐ NONWORKING TIME

GROUP BY: [RESOURCE] [V] THEN BY: [PROJECT] [V] THEN BY: [NONE] [V] [UNSORT]

1 2 ZOOM IN | ZOOM OUT | GO TO SELECTED TASK | [Gantt] USAGE VIEW |

TASK NAME	START	FINISH
CONTRACTOR 1	8/1/2002 8:00 AM	4/4/2003 5:00 PM
DEMOSITE	8/1/2002 8:00 AM	4/4/2003 5:00 PM
MONA SYSTEM	8/1/2002 8:00 AM	4/4/2003 5:00 PM
MONA CONTINGE	8/1/2002 8:00 AM	8/2/2002 10:40 AM
SOUTHEAST QUI	8/1/2002 8:00 AM	8/2/2002 10:40 AM
BUILDING E1 F	8/1/2002 8:00 AM	8/1/2002 8:00 AM
BUILDING E1 F	8/1/2002 8:00 AM	8/2/2002 10:40 AM
TREATMENT COM	1/10/2003 8:00 AM	4/4/2003 5:00 PM
CONSTRUCTION	1/10/2003 8:00 AM	4/4/2003 5:00 PM
CONSTRUCT FO	1/10/2003 8:00 AM	1/21/2003 12:00 PM
INSTALL ELECTR	2/18/2003 1:00 PM	2/25/2003 12:00 PM
INSTALL TELEPH	2/18/2003 1:00 PM	2/25/2003 12:00 PM
RELOCATE VE	3/11/2003 1:00 PM	3/25/2003 12:00 PM
RELOCATE AIR	2/25/2003 1:00 PM	3/11/2003 12:00 PM
INSTALL NEW F	3/26/2003 1:00 PM	4/4/2003 5:00 PM

132

134

UNKNOWN ZONE (MIXED)

DONE

FIG. 6

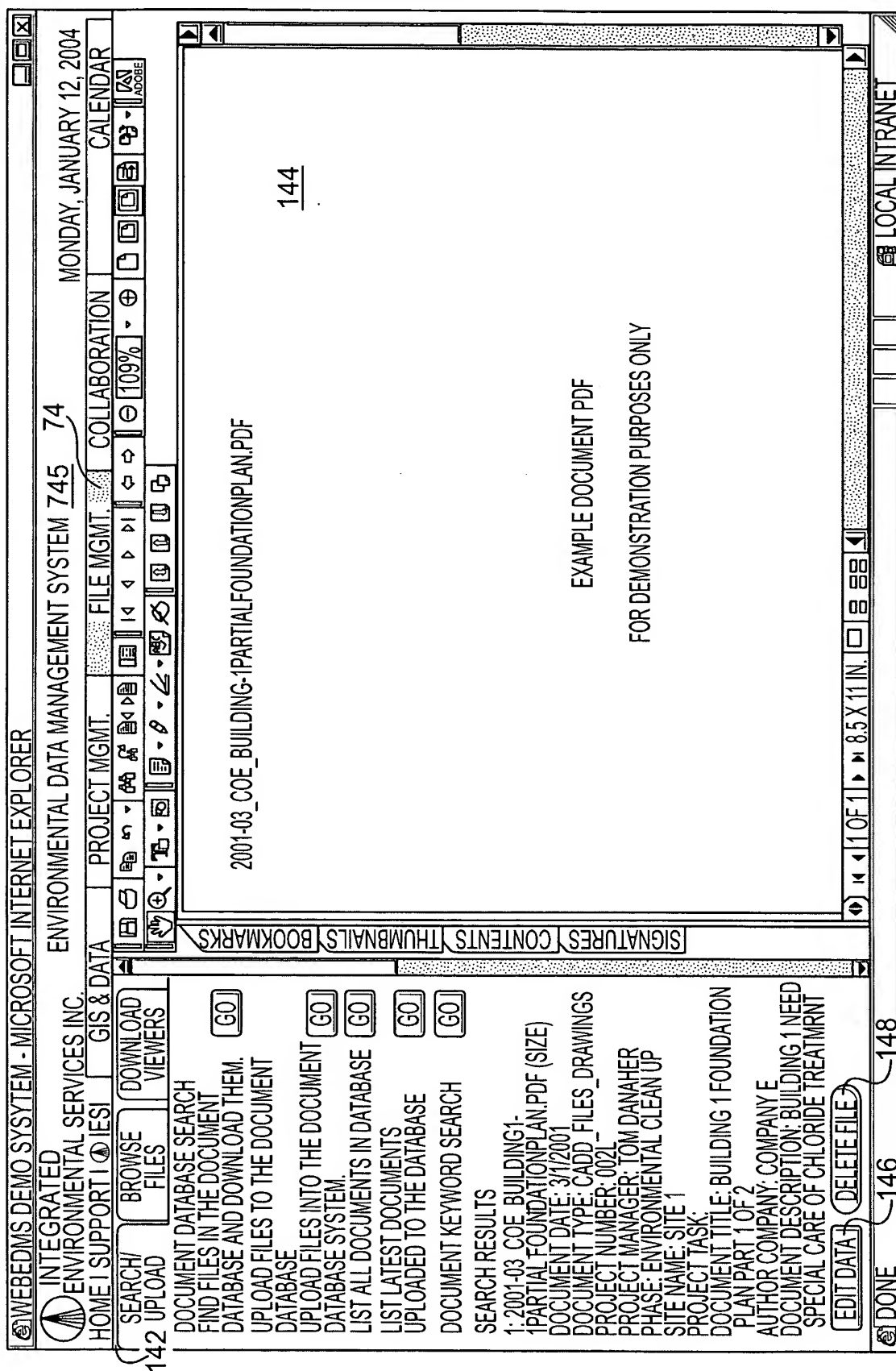


FIG. 7

140

WEBEDMS DEMO SYSTEM - MICROSOFT INTERNET EXPLORER			
INTEGRATED ENVIRONMENTAL SERVICES INC.		ENVIRONMENTAL DATA MANAGEMENT SYSTEM 747 74 MONDAY, JANUARY 12, 2004	
HOME SUPPORT	GIS & DATA	PROJECT MGMT.	FILE MGMT. COLLABORATION CALENDAR
UPLOAD FILES INTO THE DROP BOX FOR PICKUP			
154			
STEP 1: FIND THE FILE YOU WISH TO UPLOAD			
CLICK THE BROWSE BUTTON TO SELECT THE FILE THAT YOU WANT TO ADD YOU CAN UPLOAD UP TO 3 FILES AT A TIME (NOTE: MAX FILE SIZE IS 30 MB)			
SELECT 1ST FILE TO ADD <input type="text"/> <input type="button" value="BROWSE..."/>			
SELECT 2ND FILE TO ADD <input type="text"/> <input type="button" value="BROWSE..."/>			
SELECT 3RD FILE TO ADD <input type="text"/> <input type="button" value="BROWSE..."/>			
156			
STEP 2: CREATE FILE ATTRIBUTES TO HELP THE RECIPIENT FIND IT			
RECIPIENT'S NAME: <input type="text"/>			
UPLOADED BY: <input type="text"/>			
157			
NUMBER DAYS TO LEAVE ON SERVER: <input type="text" value="1"/> <input type="button" value="v"/>			
COMMENTS: <input type="text"/>			
STEP 3: START THE FILE UPLOAD TO THE FILE DROP BOX			
CLICK THE ADD FILE BUTTON TO ALLOW OTHER USERS TO DOWNLOAD YOUR FILES			
158			
<input type="button" value="ADD FILE"/>			
150			
LOCAL INTRANET			

INTEGRATED ENVIRONMENTAL SERVICES INC.	
HOME SUPPORT	MEET ONLINE
152	
FILE DROP BOX	
KNOWLEDGE BOARDS	
HTTP FILE UPLOAD/DOWNLOAD AREA SHARE FILES THAT ARE TOO LARGE TO EMAIL BY DROPPING THEM OFF AND PICKING THEM UP HERE. NOTE: MAX FILE SIZE IS 30 MB BEST FOR QUICK SIMPLE UPLOADING OF MEDIUM SIZED FILES	
NEW FILES IN THE DROP BOX:	
FILE NAME: 2003_04_USERSMANUAL.PDF	
FILE SIZE: 7132808 BYTES	
RECIPIENT'S NAME: JOHN DOE	
UPLOADED BY: JANE DOE	
UPLOAD DATE: 1/12/2004	
DAYS TO LEAVE ON SERVER: 1	
COMMENTS: PLEASE REVIEW THE FILE.	

FIG. 8

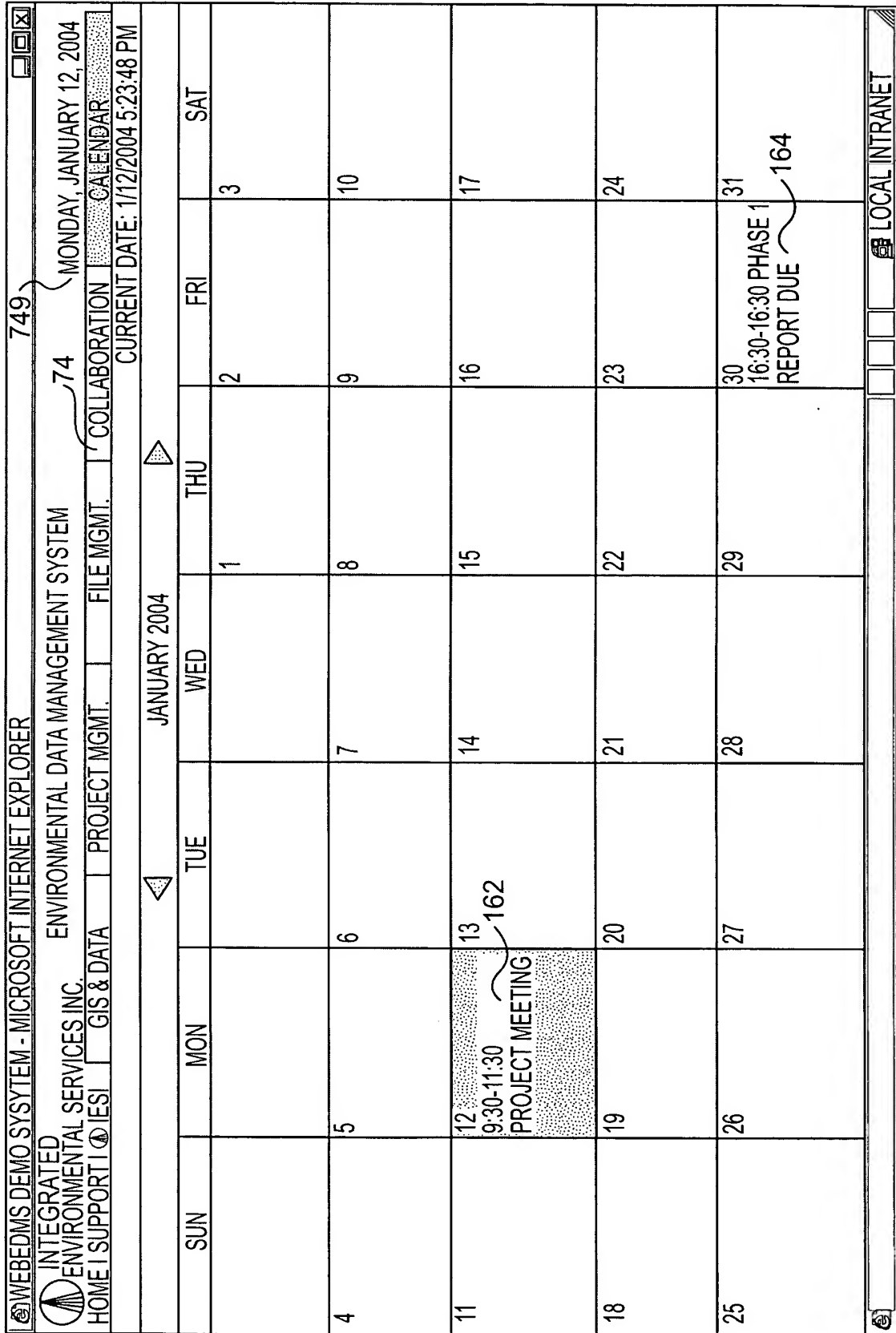


FIG. 9

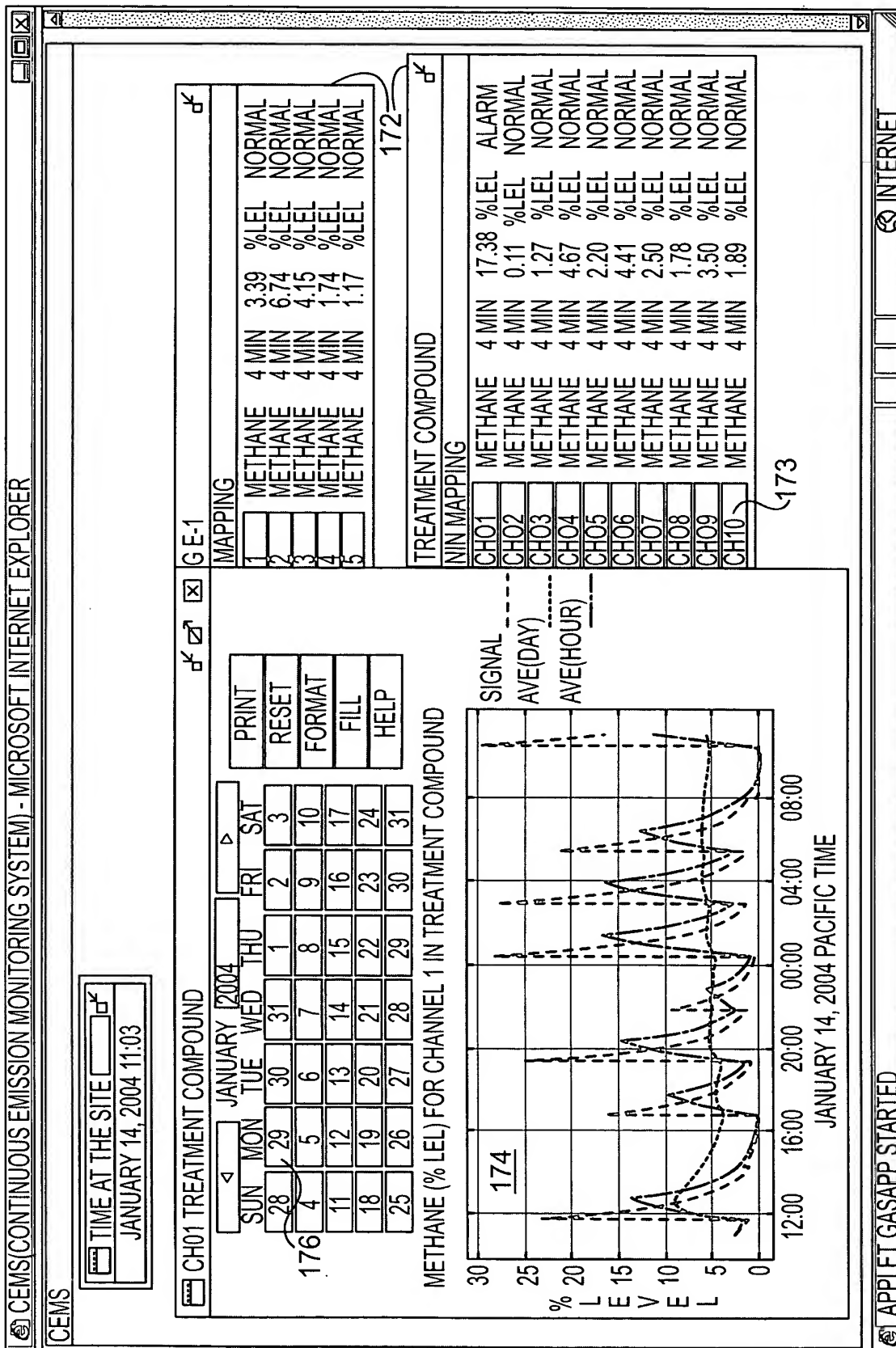
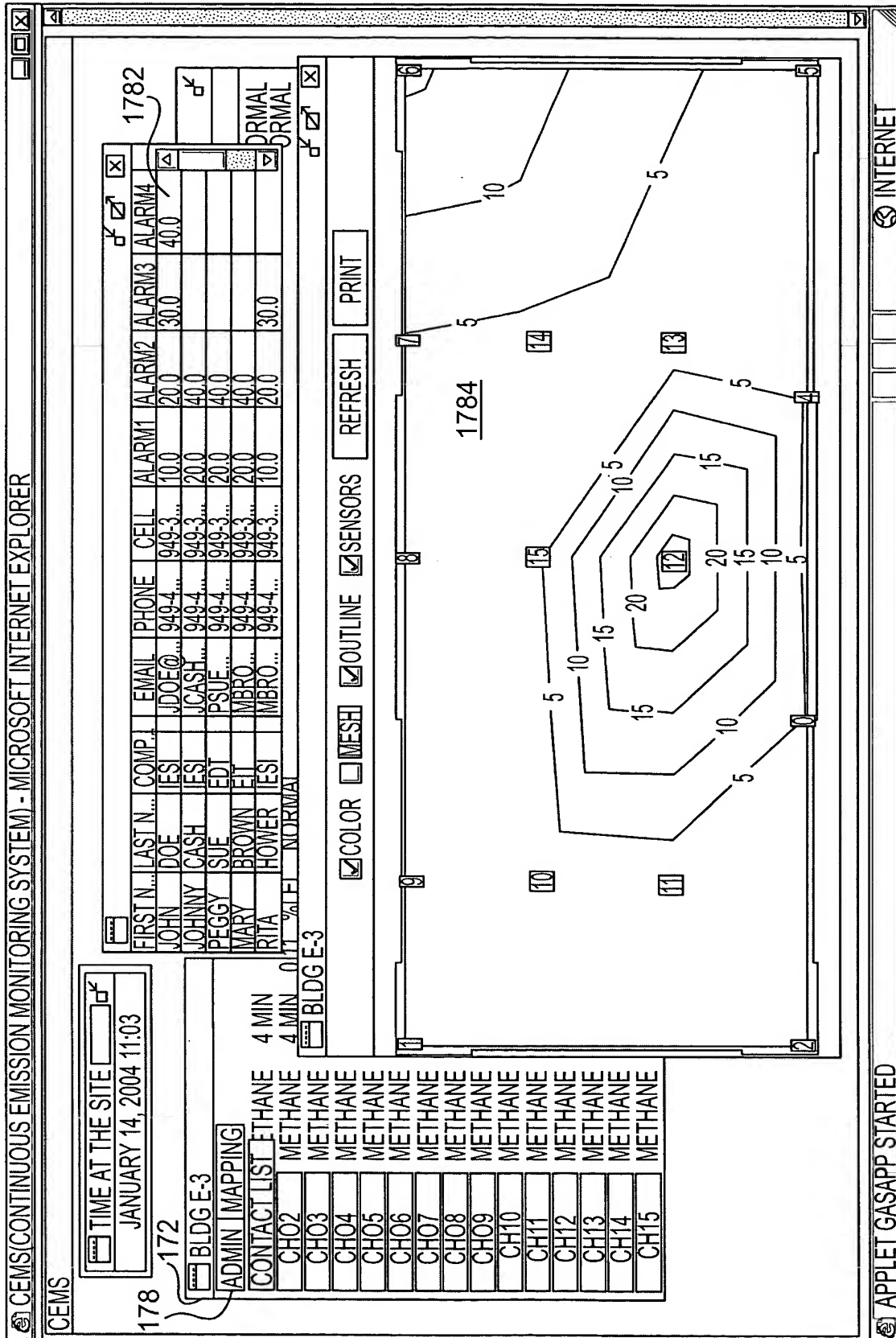


FIG. 10a

170



Inventor(s): Michael Y. YOUNG, et al.

Contact Name: Sean S. Wooden (202) 662-2700

Attorney Docket No.: 151877

WEBEDMS DEMO SYSTEM - MICROSOFT INTERNET EXPLORER

INTEGRATED ENVIRONMENTAL SERVICES INC. ENVIRONMENTAL DATA MANAGEMENT SYSTEM

HOME | SUPPORT | GIS & DATA | PROJECT MGMT. | FILE MGMT. | COLLABORATION | CALENDAR

MONDAY, JANUARY 12, 2004

CREATE YOUR QUERY USING THE FORM BELOW

SELECT MAP LAYERS
SELECT AN ACTIVE LAYER
TURN LAYERS ON/OFF
(CLEAR LAYERS) (RESET LAYERS)

ENVIRONMENTAL DATA
NEW DEVELOPMENT
EXISTING DEVELOPMENT
BASE MAP INFO
(CLEAR LAYERS) (RESET LAYERS)

OBJECT SEARCH
OBJECT FINDER
SEARCH

REMOTE METHANE MONITORING (AM) ANALYSIS MANAGER (3D) VIEWER (3D) RISK ASSESSMENT (RT) REMEDIAL TECHNOLOGY

COORDS: 485, 529

72

MW-25 MW-130 MW-28 MW-05 MW-34D MW-22 MW-23 MW-29 MW-04A MW-32

700 FT. 350 0

1882

1880

70

SELECT SAMPLE MATRIX (REQUIRED)
WLG 183 182

DISPLAY TOP ANALYTE
20 184 185

SELECT DATA TIME DURATION:
START DATE: MM/DD/YYYY (OPTIONAL)
01/10/1990
END DATE: MM/DD/YYYY (OPTIONAL)
01/10/2000 1860
☐ EXCLUDE NON DETECT SAMPLES

SELECT SCREENING QUERY: 186
COMPARE ANALYTE TO REGULATORY STD
REGULATORY STANDARD:
CALDHS PRIMARY MCL
ANALYTE:
75-01-4: VINYL CHLORIDE

DISPLAY RESULTS:
GREATER THAN STD. 1862 1864
NUMBER OF RECORDS FOUND: 20 1866
VIEW CHART
☐ BELOW STANDARD
☒ STANDARD
☐ ABOVE STANDARD 1884 188
DOWNLOAD MS EXCEL FILE

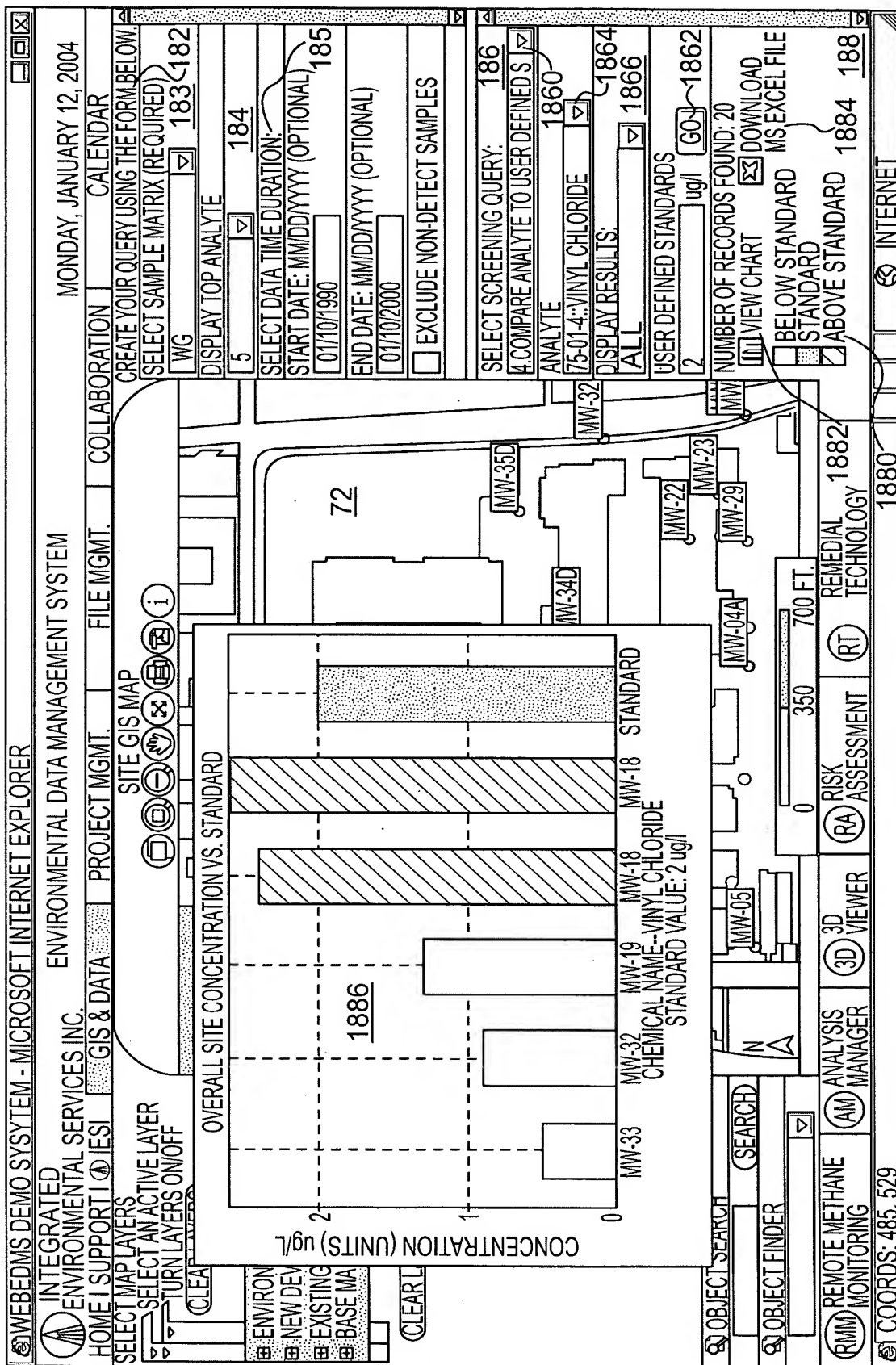
INTERNET

FIG. 11a

Inventor(s): Michael Y. YOUNG, et al.

Contact Name: Sean S. Wooden (202) 662-2700

Attorney Docket No.: 151877



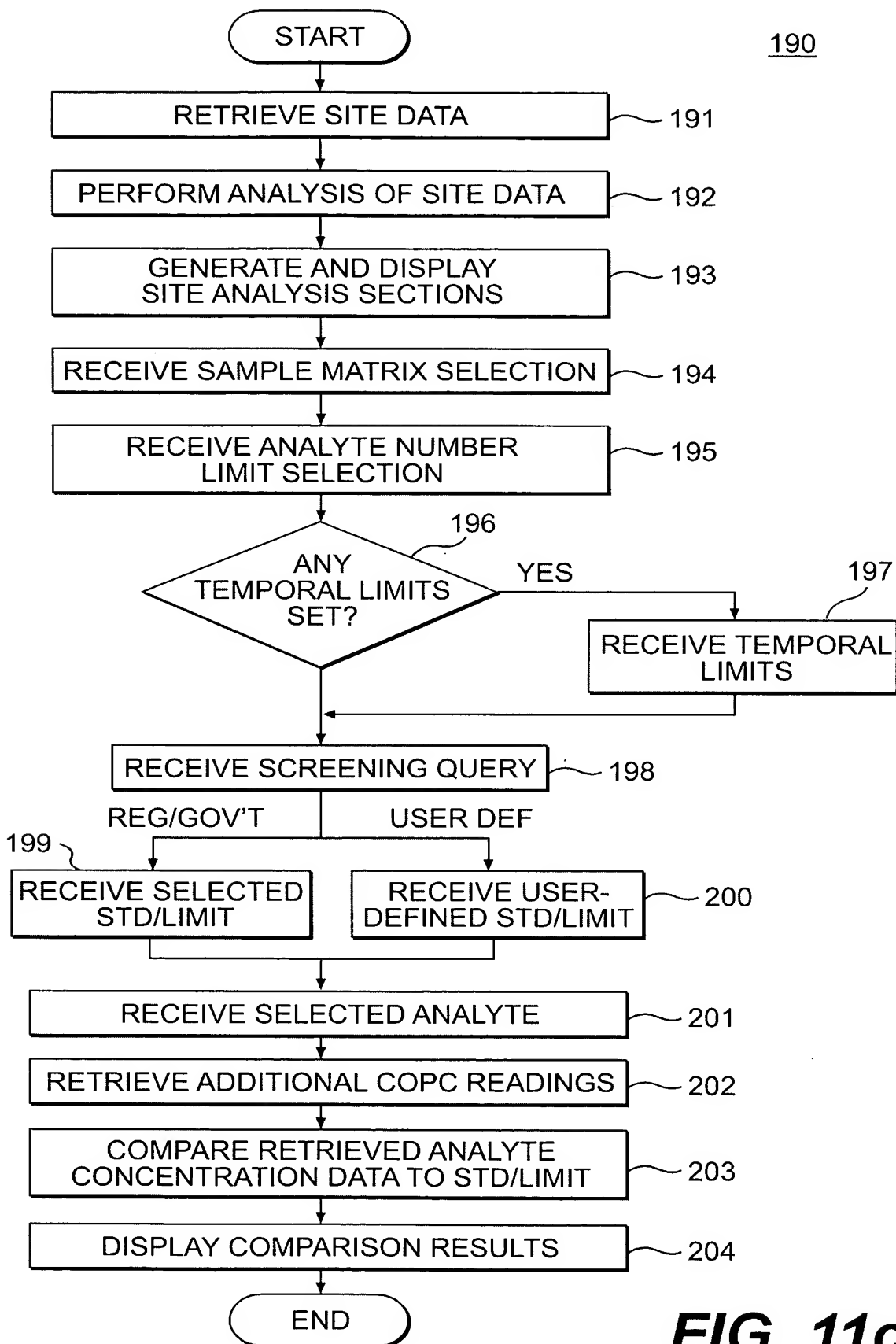


FIG. 11c





FIG. 12b

RISK ASSESMENT - MICROSOFT INTERNET EXPLORER

FILE EDIT VIEW FAVORITES TOOLS HELP

LINKS >>

WEBHRAS

232 SITE NAME: CARSON TOWN CENTER

234 JOB NAME: SOUTH QUADRANT

236 ROI NAME: TEST SITE AREA 2 START DATE: 6/1/1985 - END DATE: 7/3/2003 - REMARK:

238 SELECT MEDIA: SELECT JUST ONE MEDIA ONLY
☐ SOIL ☐ S-SILT ☐

240 SELECT COMPOUND:
☐ MANUALLY SELECT ☐ ALL DETECTED COPCS ☐ MAX CONC. > IND, PPGS ☐ MAX CONC. > MCL
 YOU WILL NOT BE ABLE TO CHANGE THE SELECTED COPC LIST WITH THIS OPTION.
☐ -SELECT COMPOUND--
 BENZENE
 ETHYLBENZENE
 PHCAS DIESEL FUEL
 PHCAS DIESEL GASOLINE

242 TOXICITY: ☐ FEDERAL ☐ STATE ☐ CALIFORNIA

244 SELECT RECEPTOR:
☐ TO SELECT MORE THAN ONE RECEPTOR. HOLD DOWN THE CTRL KEY WHILE MAKING SELECTIONS
☐ -SELECT RECEPTOR--
 COMMERCIAL WORKER
 CONSTRUCTION WORKER
 RESIDENTIAL ADULT
 RECREATIONAL ADULT

☐ TO SELECT MORE THAN ONE PATHWAY. HOLD DOWN THE CTRL KEY WHILE MAKING SELECTIONS

TO FIG. 13a CONT.

FIG. 13a

TO FIG. 13a CONT.

FROM FIG. 13a

FROM FIG. 13a

246

SELECT PATHWAY:

--SELECT PATHWAY--

DERMAL CONTACT

INHALATION OF INDOOR AIR

INHALATION OF OUTDOOR AIR

INGESTION

248

SELECT HBRGS OR RISK:

O HBRGS

RISK

95% UPPER CONFIDENCE LIMIT

250

HQ THRESHOLD:

1

ILCR THRESHOLD:

1E-04

254

PROCEED TO NEXT STEP

252

INTERNET

DONE

FIG. 13a CONT.

RECEPTORS PARAMETERS - MICROSOFT INTERNET EXPLORER

FILE EDIT VIEW FAVORITES TOOLS HELP

LINKS >>

PLEASE REVIEW THE RECEPTOR PARAMETERS BASED ON THE CONDITION YOU HAVE JUST SELECTED.

RECEPTOR PARAMETERS

RECEPTOR	EFD	EFINH	EFING	EDC	EDN	BW	IR	AF	SA	ETIN
COMMERCIAL WORKER	0	250	250	70	25	70	1.25	1	5800	8
CONSTRUCTION WORKER	250	250	250	70	1	70	1.5	1	3760	0
RESIDENTIAL ADULT	400	350	350	70	30	70	0.83	1	5860	16

RETURN TO PREVIOUS STEP

MAKE CHANGES

CONTINUE

NOTES:

EFD: EXPOSURE FREQUENCY DERMAL (DAYS/YEAR)
EFINH: EXPOSURE FREQUENCY INHALATION (DAYS/YEAR)
EFING: EXPOSURE FREQUENCY INGESTION (DAYS/YEAR)
EDC: EXPOSURE DURATION FOR CARCINOGENS (YEARS)
EDN: EXPOSURE DURATION FOR NON-CARCINOGENS (YEARS)
BW: BODY WEIGHT (kg)
IR: INHALATION RATE (INDOOR/OUTDOOR AIR) (m³/HOUR)
IRS: INGESTION RATE OF SOIL (mg/DAY)
AF: SOIL TO SKIN ADHERENCE FACTOR (mg/cm²)
SA: SKIN SURFACE AREA (cm²)
ETOUT: EXPOSURE TIME OUTDOORS (HOURS/DAY)
ETIN: EXPOSURE TIME INDOORS (HOURS/DAY)

DONE

INTERNET

FIG. 13b

RECEPTORS PARAMETERS - MICROSOFT INTERNET EXPLORER
FILE EDIT VIEW FAVORITES TOOLS HELP
LINKS >>

PLEASE TYPE OVER THE RECEPTOR PARAMETER THAT YOU WOULD LIKE TO CHANGE.

RECEPTOR PARAMETERS

RECEPTOR	EFD	EFING	EDC	EDN	BW	IR	AF	SA	ETIN
COMMERCIAL WORKER	0	250	70	25	70	1.25	1	5800	8
CONSTRUCTION WORKER	250	250	70	1	70	1.5	1	3760	0
RESIDENTIAL ADULT	400	350	70	30	70	0.83	1	5800	16

ACCEPT CHANGES

CANCEL CHANGES

NOTES:
EFD: EXPOSURE FREQUENCY DERMAL (DAYS/YEAR)
EFINH: EXPOSURE FREQUENCY INHALATION (DAYS/YEAR)
EFING: EXPOSURE FREQUENCY INGESTION (DAYS/YEAR)
EDC: EXPOSURE DURATION FOR CARCINOGENS (YEARS)
EDN: EXPOSURE DURATION FOR NON-CARCINOGENS (YEARS)
BW: BODY WEIGHT (kg)
IR: INHALATION RATE (INDOOR/OUTDOOR AIR) (m³/HOUR)
IRS: INGESTION RATE OF SOIL (mg/DAY)
AF: SOIL TO SKIN ADHERENCE FACTOR (mg/cm²)
SA: SKIN SURFACE AREA (cm²)
ETOUT: EXPOSURE TIME OUTDOORS (HOURS/DAY)
ETIN: EXPOSURE TIME INDOORS (HOURS/DAY)

DONE
INTERNET

FIG. 13C

TO FIG. 13d CONT.

FROM FIG. 13d

FIG. 13d CONT.

FROM FIG. 13d

***FOR PURPOSES OF THIS SCREENING LEVEL RISK ASSESSMENT, THE FOLLOWING PATHWAYS ARE CONSIDERED POTENTIALLY COMPLETE FOR EACH RECEPTOR:

1. CONSTRUCTION WORKER: DERMAL CONTACT, INGESTION AND INHALATION OF OUTDOOR AIR.
2. COMMERCIAL WORKER: INHALATION OF OUTDOOR AIR AND INHALATION OF INDOOR AIR VIA VAPOR INTRUSION.
3. RESIDENTIAL ADULT AND CHILD: DERMAL CONTACT, INGESTION, INHALATION OF OUTDOOR AIR AND INHALATION OF INDOOR AIR VIA VAPOR INTRUSION.
4. RECREATIONAL ADULT AND CHILD: DERMAL, INGESTION AND INHALATION OF OUTDOOR AIR.
5. IF THE CONCENTRATION COLUMN IS N/A, THE PATHWAY IS CONSIDERED INCOMPLETE.
6. IF THE TOXICITY COLUMN IS N/A, THE PATHWAY IS CONSIDERED INCOMPLETE.
7. WHERE AVAILABLE CHRONIC TOXICITY VALUES ARE USED FOR CONSTRUCTION WORKER.
8. IF LEAD IS A PRIMARY COPC, ADDITIONAL EVALUATION IS NECESSARY.
9. COMPOUNDS WITHOUT REQUIRED PARAMETERS FOR RISK-BASED CALCULATOR WILL BE EXCLUDED AND CAN BE VIEWED TRANSACTION LOG STEP 1b.

286

288

290

292

294

GET SUMMARY REPORT

VIEW TOXICITY VALUES

VIEW EXCEL REPORT

RETURN TO WEBHRAS

DONE

INTERNET

TO FIG. 13e CONT.

FROM FIG. 13e

FIG. 13e CONT.

FROM FIG. 13e

***FOR PURPOSES OF THIS SCREENING LEVEL RISK ASSESSMENT, THE FOLLOWING PATHWAYS ARE CONSIDERED POTENTIALLY COMPLETE FOR EACH RECEPTOR:

1. CONSTRUCTION WORKER: DERMAL CONTACT WITH SOIL AND GROUNDWATER, AND INHALATION OF OUTDOOR AIR.
2. COMMERCIAL WORKER: INHALATION OF OUTDOOR AIR AND INHALATION OF INDOOR AIR VIA VAPOR INTRUSION.
3. RESIDENTIAL ADULT AND CHILD: DERMAL CONTACT WITH SOIL, INGESTION OF SOIL, INHALATION OF OUTDOOR AIR AND INHALATION OF INDOOR AIR VIA VAPOR INTRUSION.
4. RECREATIONAL ADULT AND CHILD: DERMAL WITH SOIL, INGESTION OF SOIL AND INHALATION OF OUTDOOR AIR.

304

306

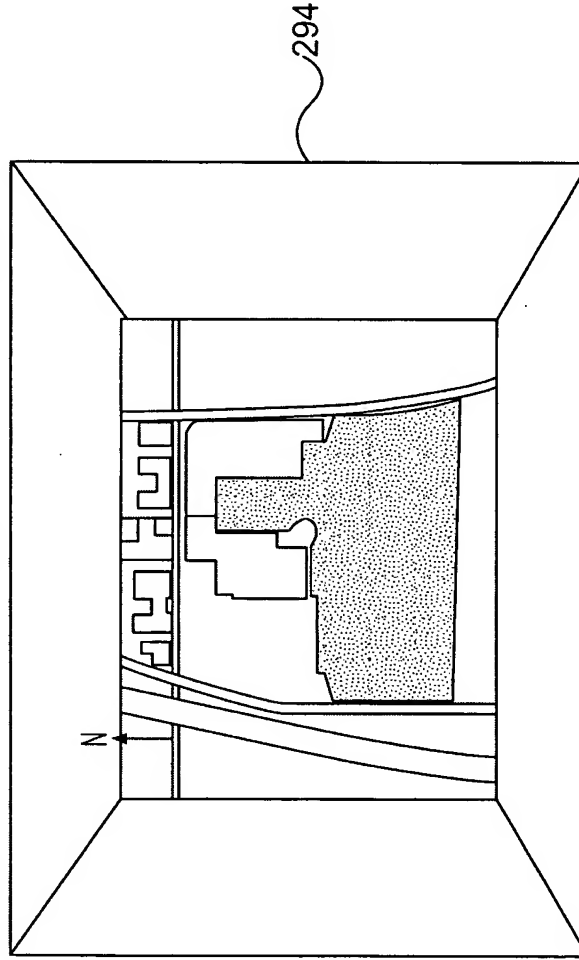
VIEW TOXICITY VALUES

290

VIEW EXCEL REPORT

292

RETURN TO WEBHRAS



DONE

INTERNET

SUMMARY REPORT - MICROSOFT INTERNET EXPLORER	
FILE EDIT VIEW FAVORITES TOOLS HELP	
LINKS >>	
<p>RISK CHARACTERIZATION SUMMARY REPORT</p> <p>SITE NAME: CARSON TOWN CENTER - JOB NAME: SOUTH QUADRANT 310</p> <p>ROI NAME: TEST SITE AREA 2 - START DATE: 8/1/1985 12:00:00 PM - END DATE: 7/3/2003 12:00:00 PM</p> <p>MEDIA: SOIL - SOIL TYPE: SILT - REPORT DATE/TIME: 1/12/2004 8:36:29 PM</p> <p>RECEPTOR: COMMERCIAL WORKER, CONSTRUCTION WORKER, RESIDENTIAL ADULT 282</p> <p>PATHWAY: DERMAL CONTACT, INHALATION OF INDOOR AIR</p> <p>RISK - CONCENTRATION BASIS: 95% UPPER CONFIDENCE LIMIT - HQ THRESHOLD: 1.E+0 - ILCR THRESHOLD: 1.E-4</p>	
STEP	TRANSACTION LOG FILE
<p>DOWNLOAD ALL LOGS</p> <p>STEP 1A_USER_QUERY.TXT</p>	<p>TRANSACTION LOG FILE: STEP1a_USER_QUERY.TXT</p> <p>DESCRIPTION: INITIAL USER SELECTED CRITERIA</p> <p>DATE/TIME: 1/12/2004 8:36:24 PM</p> <p>312</p> <p>SITE NAME = CARSON TOWN CENTER</p> <p>JOB NAME = SOUTH QUADRANT</p> <p>NAME ROI = TEST SITE AREA 2</p> <p>MEDIADESC = SOIL</p> <p>SCS DESC = SILT</p> <p>RECEPTORID = CM1; CT1; RA1</p> <p>PATHWAYID = DC1; GA3</p> <p>CALCULATIONDESC = 95% UPPER CONFIDENCE LIMIT</p> <p>CASNO =</p> <p>HBRGTYPE = RISK</p> <p>HQ THRESHOLD = 1</p> <p>ILCR THRESHOLD = 0.0001</p> <p>TOXICITY = CA</p> <p>314</p>
<p>304 ~ RETURN TO PRELIMINARY REPORT</p> <p>RETURN TO WEBHRAS 292</p> <p>DONE</p>	

FIG. 13f

↓ TO FIG. 13g CONT.

FIG. 13a

↓ TO FIG. 13g CONT.

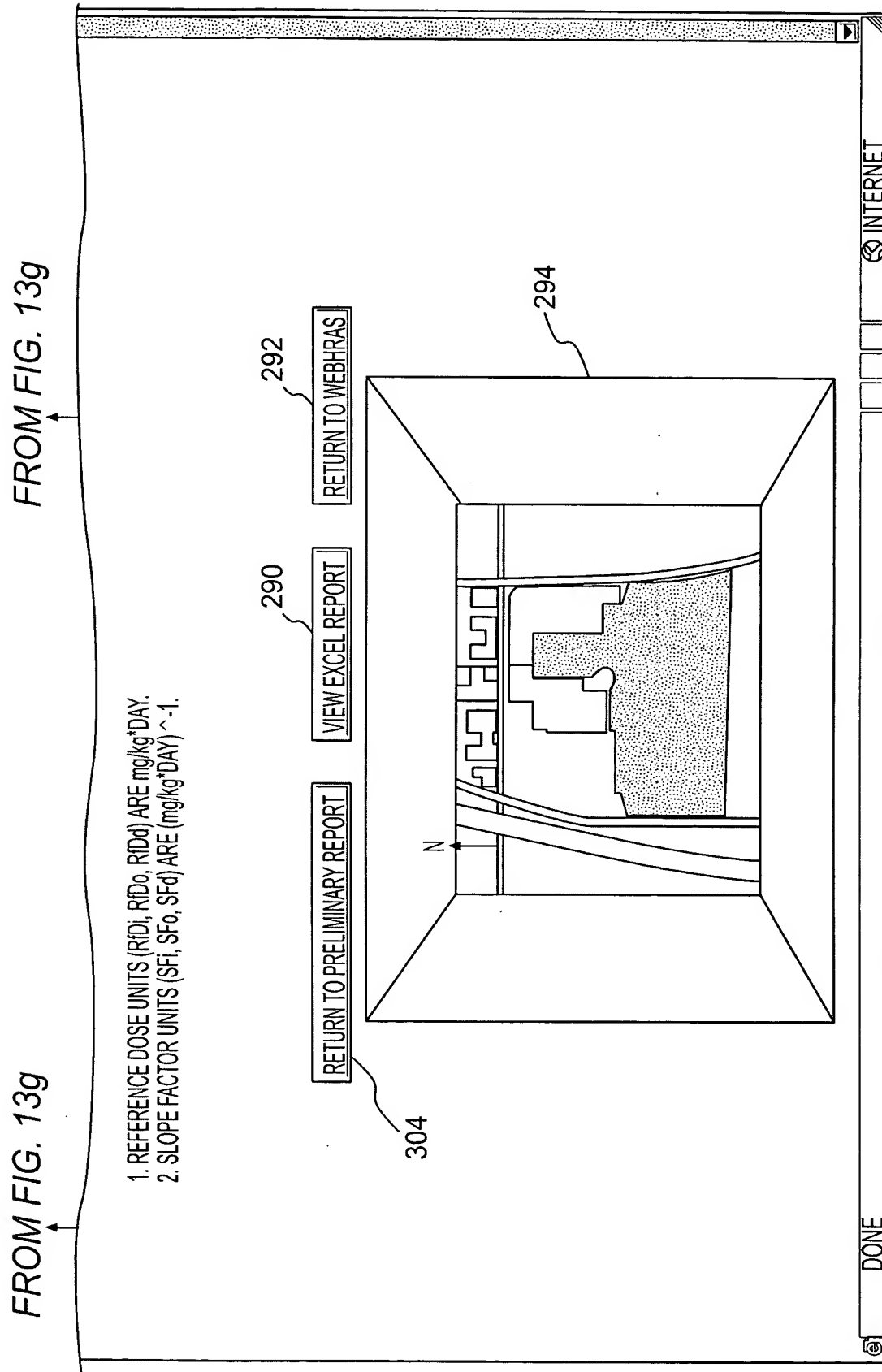


FIG. 13g CONT.

325

http://192.168.1.62/WEBEDMS/xls/011204_204742_207_PR.XLS-Microsoft Internet Explorer										
File Edit View Insert Format Tools Data Go To Favorites Help										
A1		fx								
	A	B	C	D	E	F	G	H	I	J
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11	RECEPTOR	PATHWAY	COMPOUND	CONCENTRATION	HQ CALCULATION	CDI(mg/kg	HQ (unitile	CDI(mg/kg CSF (kg*d	ILCR	
12										
13	COMMERCIAL WORK	INHALATION OF INDOOR	BENZENE	1.228371028	0.000913	0.00171	0.533737	0.000913	0.1	9.13E
14	COMMERCIAL WORK	INHALATION OF INDOOR	ETHYLBENZENE	2.608454599	0.000595	0.29	0.00205	0.000595	0.00385	2.29E
15	COMMERCIAL WORK	INHALATION OF INDOOR	PHC AS DIESEL FU	399.9914476						
16	COMMERCIAL WORK	INHALATION OF INDOOR	PHC AS GASOLINE	325.1535332						
17	COMMERCIAL WORK	INHALATION OF INDOOR	TETRACHLOROETH	0.18427058	0.0000334	0.17	0.001967	0.000334	0.15	5.02E
18	COMMERCIAL WORK	INHALATION OF INDOOR	TOLUENE	4.221836238	0.001507	0.11	0.013697	0.001507		
19	COMMERCIAL WORK	INHALATION OF INDOOR	TRICHLOROETHYLE	0.144122158	0.000172	0.01	0.017152	0.000172	0.01	1.72E

↓
CONT. TO FIG 13h

FIG. 13h

↓
CONT. TO FIG 13h

250

FIG. 14a

HQ/ILCR REPORT - MICROSOFT INTERNET EXPLORER									
HQ/ILCR PRELIMINARY REPORT									
SITE NAME: CARSON TOWN CENTER - JOB NAME: SOUTH QUADRANT									
ROI NAME: TEST SITE AREA 2 - START DATE: 8/1/1985 12:00:00 PM - END DATE: 7/3/2003 12:00:00 PM									
MEDIA: SOIL - SOIL TYPE: SILT - REPORT DATE/TIME: 1/29/2004 4:31:23 PM									
RECEPTOR: COMMERCIAL WORKER, RESIDENTIAL CHILD									
PATHWAY: DERMAL CONTACT, INHALATION OF INDOOR AIR									
HBRG - CONCENTRATION BASIS: UNITY - HQ THRESHOLD: 1.E+0 - ILCR THRESHOLD: 1.E-4									
RECEPTOR/PATHWAY	COMPOUND	CONCENTRATION (mg/kg)	HQ CALCULATION			ILCR CALCULATION			
			CDI (mg/kg*DAY)	RfD (mg/kg*DAY)	HQ (UNITLESS)	CDI (mg/kg*DAY)	CSF (kg*DAY/mg)	ILCR (UNITLESS)	
RECEPTOR: COMMERCIAL WORKER									
INHALATION OF INDOOR AIR	BENZENE	1.E+0	7.52E-4	1.71E+3	4.4E+1	7.62E-4	1.E+1	7.62E-6	
INHALATION OF INDOOR AIR	ETHYL BENZENE	1.E+0	2.67E-4	2.9E+1	9.2E+4	2.67E-4	3.85E+3	1.03E-5	
INHALATION OF INDOOR AIR	PHCAS DIESEL FUEL	1.E+0	N/A	N/A	N/A	N/A	N/A	N/A	
INHALATION OF INDOOR AIR	PHCAS GASOLINE	1.E+0	N/A	N/A	N/A	N/A	N/A	N/A	
INHALATION OF INDOOR AIR	TETRACHLOROETHYLENE(PCE)	1.E+0	1.16E-3	1.7E+1	6.81E+3	1.16E-3	1.5E+1	1.74E-4	
INHALATION OF INDOOR AIR	TOLUENE	1.E+0	4.01E-4	1.1E+1	3.64E-3	4.01E-4	N/A	N/A	
INHALATION OF INDOOR AIR	TRICHLOROETHYLENE(TCE)	1.E+0	6.61E-4	1.E-2	6.61E+2	6.61E-4	1.E+2	6.61E-6	
INHALATION OF INDOOR AIR	XYLENES, TOTAL	1.E+0	N/A	2.9E-2	N/A	N/A	N/A	N/A	
RECEPTOR: RESIDENTIAL CHILD									
DERMAL CONTACT	BENZENE	1.E+0	1.28E-6	3.E-3	4.26E-4	1.28E-6	5.67E+2	7.25E-8	
DERMAL CONTACT	ETHYL BENZENE	1.E+0	1.28E-6	9.7E+2	1.32E+5	1.28E-6	3.85E+3	4.92E+9	
DERMAL CONTACT	PHCAS DIESEL FUEL	1.E+0	N/A	N/A	N/A	N/A	N/A	N/A	
DERMAL CONTACT	PHCAS GASOLINE	1.E+0	N/A	N/A	N/A	N/A	N/A	N/A	
DERMAL CONTACT	TETRACHLOROETHYLENE(PCE)	1.E+0	1.28E-6	1.E-2	1.28E-4	1.28E-6	5.2E+2	6.65E-8	
DERMAL CONTACT	TOLUENE	1.E+0	1.28E-6	1.5E+1	7.99E-6	1.28E-6	N/A	N/A	
DERMAL CONTACT	TRICHLOROETHYLENE(TCE)	1.E+0	1.28E-6	9.E-4	1.42E-3	1.28E-6	7.33E+2	9.37E-8	

TO FIG. 14b CONT.

FIG. 14b

TO FIG. 14b CONT.

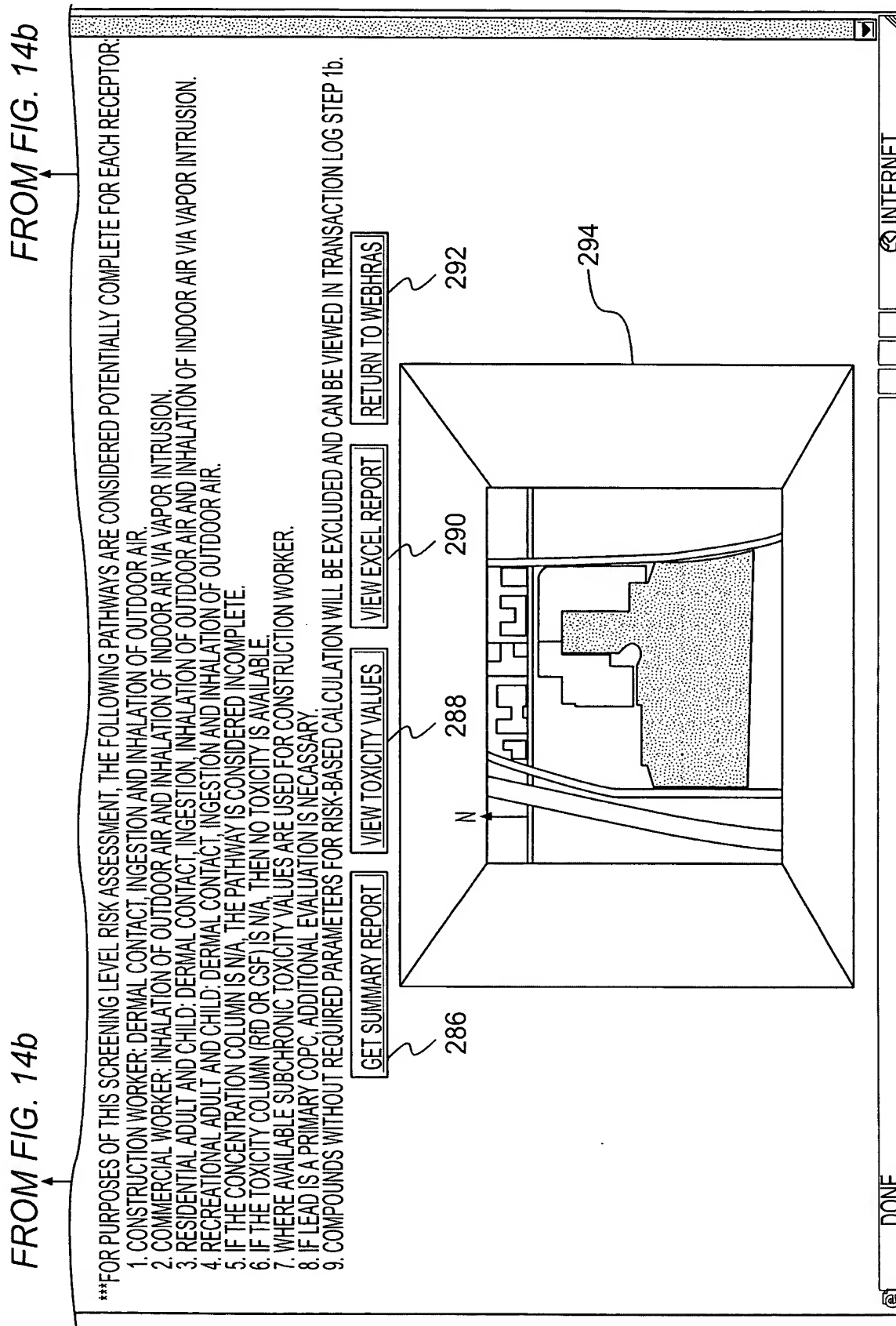


FIG. 14b CONT.

SUMMARY REPORT - MICROSOFT INTERNET EXPLORER

HBRG SUMMARY REPORT

SITE NAME: CARSON TOWN CENTER - JOB NAME: SOUTH QUADRANT

ROI NAME: TEST SITE AREA 2 - START DATE: 8/1/1985 12:00:00 PM - END DATE: 7/3/2003 12:00:00 PM

MEDIA: SOIL - SOIL TYPE: SILT - REPORT DATE/TIME: 1/29/2004 4:36:41 PM

RECEPTOR: COMMERCIAL WORKER, RESIDENTIAL CHILD

PATHWAY: DERMAL CONTACT, INHALATION OF INDOOR AIR

HBRG - CONCENTRATION BASIS: UNITY - HQ THRESHOLD: 1.E+0 - ILCR THRESHOLD: 1.E-4

COMPOUND	THEORETICAL SCALED CONCENTRATION (HQ-BASED) HBRG (mg/kg)				THEORETICAL SCALED CONCENTRATION (ILCR-BASED) HBRG (mg/kg)					
	INGESTION	DERMAL	OUTDOOR AIR	INDOOR AIR	ALL PATHWAYS	INGESTION	DERMAL	OUTDOOR AIR	INDOOR AIR	ALL PATHWAYS
COMMERCIAL WORKER										
BENZENE	N/A	N/A	2.27E+0	2.27E+0	2.27E+0	N/A	N/A	N/A	1.33E+0	1.33E+0
ETHYL BENZENE	N/A	N/A	1.09E+3	1.09E+3	1.09E+3	N/A	N/A	N/A	9.74E+1	9.74E+1
PHC AS DIESEL FUEL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PHC AS GASOLINE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TETRACHLOROETHYLENE(PCE)	N/A	N/A	1.47E+2	1.47E+2	1.47E+2	N/A	N/A	N/A	5.76E+1	5.76E+1
TOLUENE	N/A	N/A	2.74E+2	2.74E+2	2.74E+2	N/A	N/A	N/A	N/A	N/A
TRICHLOROETHYLENE(TCE)	N/A	N/A	1.51E+1	1.51E+1	1.51E+1	N/A	N/A	N/A	1.51E+1	1.51E+1
XYLENES, TOTAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RESIDENTIAL CHILD										
BENZENE	N/A	2.35E+3	N/A	3.62E+1	3.62E+1	N/A	1.38E+3	N/A	2.12E+1	2.12E+1
ETHYL BENZENE	N/A	7.59E+4	N/A	1.73E+2	1.73E+2	N/A	2.03E+4	N/A	1.55E+1	1.55E+1
PHC AS DIESEL FUEL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PHC AS GASOLINE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TETRACHLOROETHYLENE(PCE)	N/A	7.82E+3	N/A	2.34E+1	2.34E+1	N/A	1.5E+3	N/A	9.18E+2	9.18E+2

TO FIG. 14c CONT.

FIG. 14c

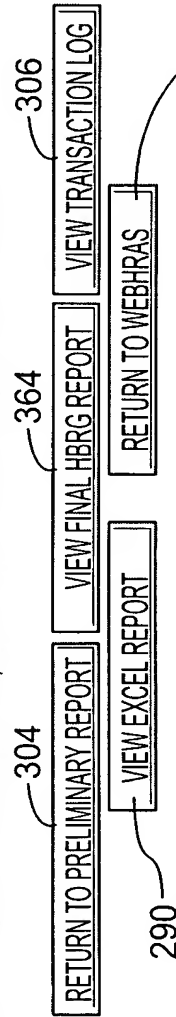
TO FIG. 14c CONT.

FROM FIG. 14c

FROM FIG. 14c

***FOR PURPOSES OF THIS SCREENING LEVEL RISK ASSESSMENT, THE FOLLOWING PATHWAYS ARE CONSIDERED POTENTIALLY COMPLETE FOR EACH RECEPTOR:

1. CONSTRUCTION WORKER: DERMAL CONTACT WITH SOIL AND GROUNDWATER, INGESTION OF SOIL AND GROUNDWATER, AND INHALATION OF OUTDOOR AIR.
2. COMMERCIAL WORKERS: INHALATION OF OUTDOOR AIR AND INHALATION OF INDOOR AIR VIA VAPOR INTRUSION.
3. RESIDENTIAL ADULT AND CHILD: DERMAL CONTACT WITH SOIL, INGESTION OF SOIL, INHALATION OF OUTDOOR AIR AND INHALATION OF INDOOR AIR VIA VAPOR INTRUSION.
4. RECREATIONAL ADULT AND CHILD: DERMAL CONTACT WITH SOIL, INGESTION OF SOIL AND INHALATION OF OUTDOOR AIR.



DONE

INTERNET

FIG. 14c CONT.

FINAL HBRG REPORT - MICROSOFT INTERNET EXPLORER

FINAL HBRG REPORT

SITE NAME: CARSON TOWN CENTER - JOB NAME: SOUTH QUADRANT

ROI NAME: TEST SITE AREA 2 - START DATE: 8/1/1985 12:00:00 PM - END DATE: 7/3/2003 12:00:00 PM

MEDIA: SOIL - SOIL TYPE: SILT - REPORT DATE/TIME: 1/29/2004 4:45:50 PM

RECEPTOR: COMMERCIAL WORKER, RESIDENTIAL CHILD

PATHWAY: DERMAL CONTACT, INHALATION OF INDOOR AIR

HBRG - CONCENTRATION BASIS: UNITY - HQ THRESHOLD: 1.E+0 - ILCR THRESHOLD: 1.E-4

COMPOUND	INITIAL HBRG (mg/kg)	SATURATION	FINAL HBRG (mg/kg)
COMMERCIAL WORKER			
BENZENE	1.33E+0	2.45E+3	1.33E+0
ETHYL BENZENE	9.74E+1	1.27E+3	9.74E+1
PHC ASDIESEL FUEL	-1.E+0	3.91E+3	-1.E+0
PHC AS GASOLINE	-1.E+0	3.91E+3	-1.E+0
TETRACHLOROETHYLENE(PCE)	5.76E-1	6.73E+2	5.76E-1
TOLUENE	2.74E+2	2.03E+3	2.74E+2
TRICHLOROETHYLENE(TCE)	1.51E+1	3.91E+3	1.51E+1
XYLENES TOTAL	1.E+0		1.E+0
RESIDENTIAL CHILD			
BENZENE	2.12E-1	2.45E+3	2.12E-1
ETHYL BENZENE	1.55E+1	1.27E+3	1.55E+1
PHC ASDIESEL FUEL	-1.E+0	3.91E+3	-1.E+0
PHC AS GASOLINE	-1.E+0	3.91E+3	-1.E+0
TETRACHLOROETHYLENE(PCE)	9.18E-2	6.73E+2	9.18E-2
TOLUENE	4.38E+1	2.03E+3	4.38E+1
TETRACHLOROETHYLENE(PCE)	2.41E+0	3.91E+3	2.41E+0

PAGE 1 OF 2

TO FIG. 14d CONT.

FIG. 14d

TO FIG. 14d CONT.

FROM FIG. 14d

FROM FIG. 14d

1. THE FINAL HBRG FOR SOIL IS EITHER THE LOWER OF THE INITIAL HBRG OR THE SATURATION CONCENTRATION.
2. THE FINAL HBRG FOR GROUND WATER IS EITHER THE LOWER OF THE INITIAL HBRG OR THE COMPOUNDS PURE COMPONENT SOLUBILITY
3. THE INITIAL HBRG IS EITHER THE LOWER OF THE THEORETICAL SCALED CONCENTRATION (HQ-BASED) HBRG OR (ILCA-BASED) HBRG.

394

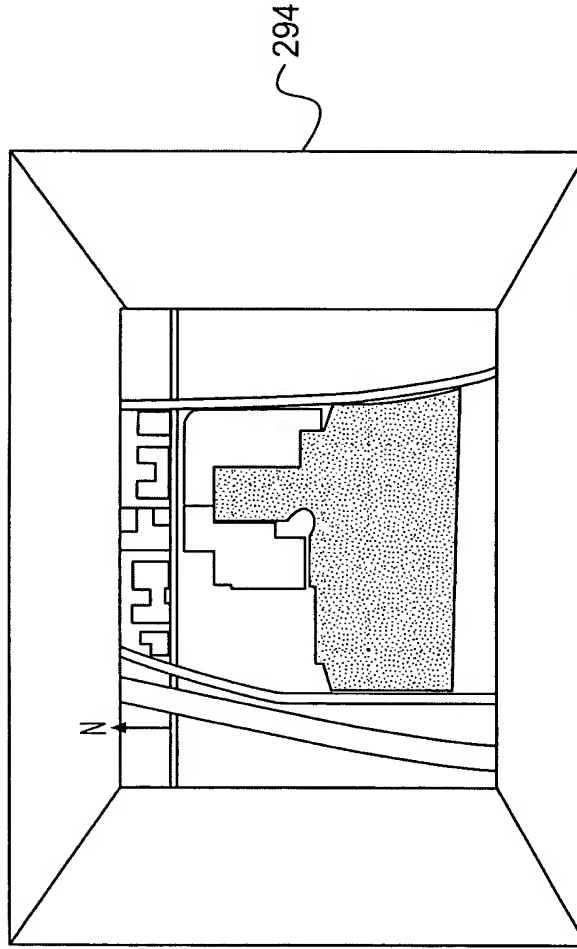
RETURN TO SUMMARY REPORT

396

VIEW EXCEL REPORT

398

RETURN TO WEBHRAS



DONE

INTERNET

FIG. 14d CONT.

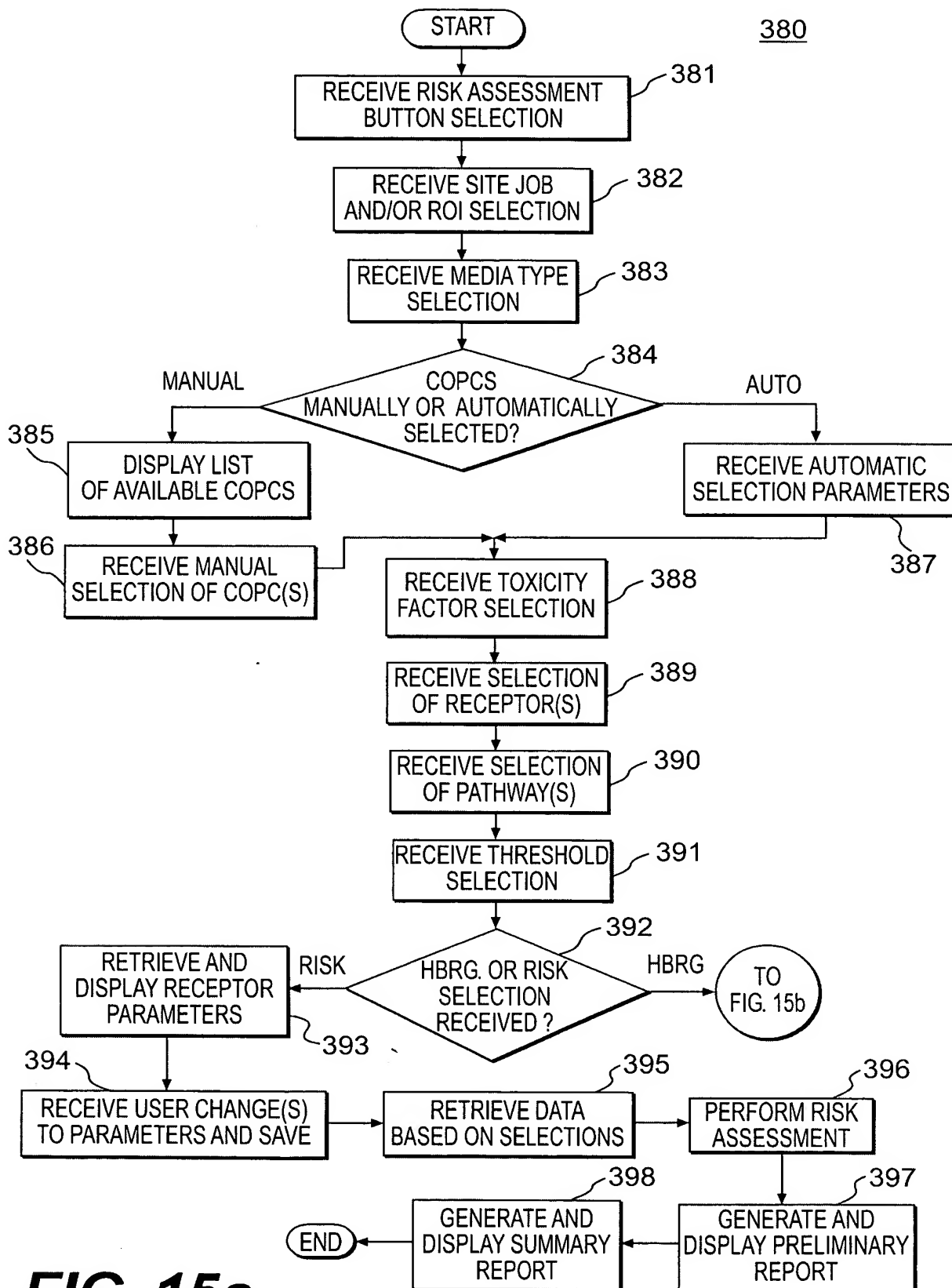


FIG. 15a

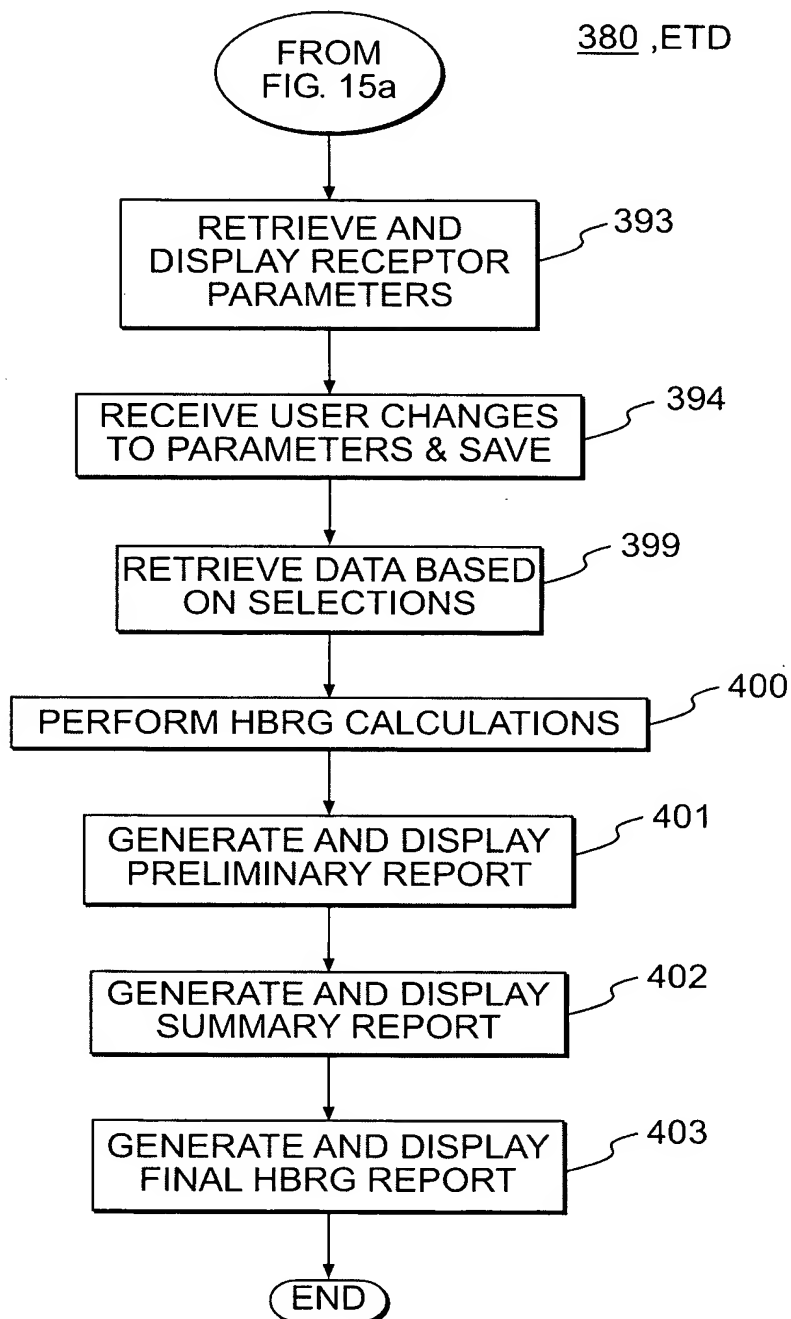


FIG. 15b

400

412 STEP 1: SELECT REGION OF INTEREST (ROI)

TEST SITE AREA 2

DATE RANGE OF DATA USED FOR SCREENING: FROM 08/01/1985 TO 07/03/2003

USERNAME: SQT

DATE/TIME OF SCREENING RUN: JAN 13 2004 10:58 AM

REMARK:

MEDIA TYPE: SOIL

NAPL (FREE-PHASE) DETECTED: NO

414 STEP 2: CHOOSE SCORE LIMIT

SHOW REMEDIAL TECHNOLOGIES WITH SCORES GREATER OR EQUAL THAN: 1.5

MOST APPLICABLE: 2.0

LEAST APPLICABLE: 0.0

416 STEP 3: CLICK ON REPORT TYPE

INITIAL SCREENING 4160

COMPREHENSIVE SCREENING 4162

COST CALCULATOR 4164

418 STEP 4: TRANSACTION REPORT FOR SELECTED REGION OF INTEREST (ROI)

TRANSACTION REPORT 4180

DONE Internet

FIG. 16a

420

http://192.168.1.62/WEBEDMS/Report/10584747_T1_2004011311013535.pdf- MICROSOFT INTERNET EXPLORER

77%

INITIAL REMEDIAL TECHNOLOGY SCREENING RESULTS *

SELECTION OF APPLICABLE REMEDIAL TECHNOLOGY AND RANKING IS DEFINED USING BASIC SITE KNOWLEDGE:

MEDIA, CONTAMINANT TYPE AND CONTAMINANT (95% UCL)

422

REGION OF INTEREST (ROI): TEST SITE AREA 2
CONTAMINATION PLUME ID: 66
MEDIA: SOIL
CONTAMINANT TYPE: FUELS, HALOGENATED VOCs

428

PARAMETERS REQUIRED TO CONDUCT COMPREHENSIVE REMEDIAL TECHNOLOGY SCREENING

424

4.1 IN-SITU SOIL VAPOR EXTRACTION	2.0	THICKNESS OF UNSATURATED ZONE, DEPTH OF CONTAMINATION BELOW GROUND SURFACE, DEPTH TO SATURATED ZONE, VOLUME EXTENT OF CONTAMINATION, SOIL BULK DENSITY, WATER FILLED POROSITY, AIR FILLED POROSITY, SOIL-WATER PARTITION COEFFICIENT FOR CONTAMINANT, HERRY'S LAW CONSTANT FOR CONTAMINANT, VAPOR PERMEABILITY FOR UNSATURATED ZONE
4.6 IN-SITU BIOVENTING	2.0	DEPTH OF CONTAMINATION BELOW GROUND SURFACE, THICKNESS EXTENT OF CONTAMINATION (Z-DIRECTION), TEMPERATURE OF MEDIA, pH DEGRADATION RATE CONSTANT FOR CONTAMINANT
4.7 IN-SITU ENHANCED BIOREMEDIATION	2.0	TEMPERATURE OF MEDIA, pH DEGRADATION RATE CONSTANT FOR CONTAMINANT
4.8 IN-SITU NATURAL ATTENUATION	2.0	TEMPERATURE OF MEDIA, pH DEGRADATION RATE CONSTANT FOR CONTAMINANT
4.10 CONTAINMENT CAPPING	2.0	SURFACE AREA EXTENT OF CONTAMINATION, DEPTH OF CONTAMINATION BELOW GROUND SURFACE, THICKNESS EXTENT OF CONTAMINATION (Z-DIRECTION), DEPTH TO SATURATED ZONE
5.1 EX-SITU SOIL VAPOR EXTRACTION	2.0	POROSITY, SOIL-WATER PARTITION VOLUME EXTENT OF CONTAMINATION, SOIL BULK DENSITY, WATER FILLED POROSITY, AIR FILLED COEFFICIENT FOR CONTAMINANT, HERRY'S LAW CONSTANT FOR CONTAMINANT

420

TO FIG16b CONT.

FIG. 16b

TO FIG16b CONT.

FROM FIG16b

FROM FIG16b

5.6 EX-SITU INCINERATION	2.0	VOLUME EXTENT OF CONTAMINATION
5.7 EX-SITU THERMAL DESORPTION	2.0	VOLUME EXTENT OF CONTAMINATION
4.6 IN-SITU THERMALLY ENHANCED SOIL VAPOR EXTRACTION	2.0	THICKNESS OF UNSATURATED ZONE, DEPTH OF CONTAMINATION, BELOW GROUND SURFACE, DEPTH TO SATURATED ZONE, VOLUME EXTENT OF CONTAMINATION, SOIL BULK DENSITY, MOISTURE CONTENT, AIR FILLED POROSITY, SOIL-WATER PARTITION COEFFICIENT FOR CONTAMINANT, HERRY'S LAW CONSTANT FOR CONTAMINATION, VAPOR PERMEABILITY FOR SATURATED ZONE
4.9 IN-SITU PHYTOREMEDIATION	1.7	THICKNESS EXTENT OF CONTAMINATION (Z-DIRECTION), DEPTH OF CONTAMINATION BELOW GROUND SURFACE, SOIL BULK DENSITY, SOIL-WATER PARTITION COEFFICIENT FOR CONTAMINANT, OCTANOL/WATER PARTITION COEFFICIENT FOR CONTAMINANT
5.2 EX-SITU SOIL WASHING	1.7	VOLUME EXTENT OF CONTAMINATION, SOIL BULK DENSITY
5.9 EX-SITU BIOPILES	1.7	VOLUME EXTENT OF CONTAMINATION, DEGRADATION RATE CONSTANT FOR CONTAMINANT

FIG.16b CONT.

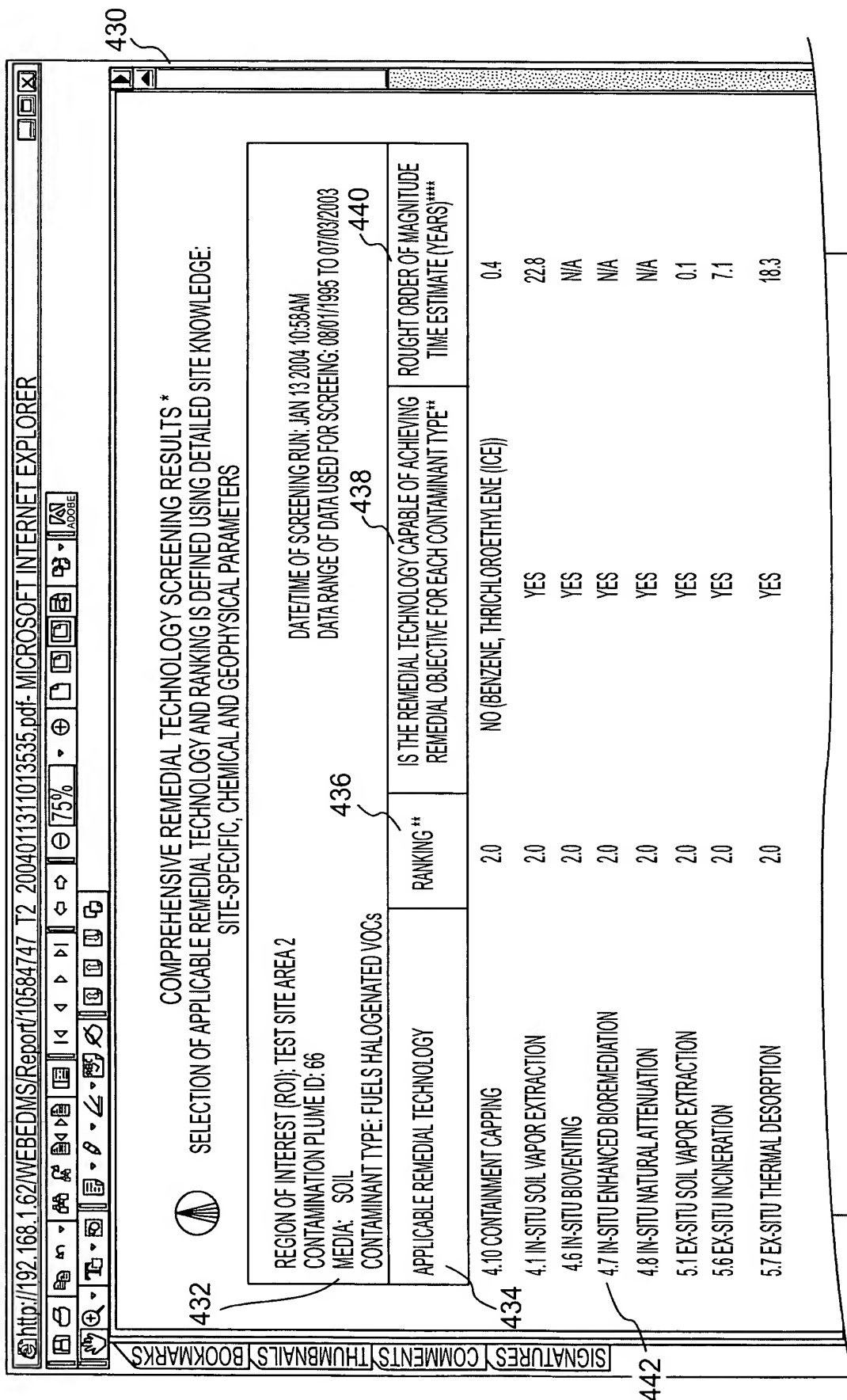


FIG. 16c

TO FIG16c CONT.

TO FIG16c CONT.

FROM FIG16c

FROM FIG16c

4.5 IN-SITU THERMALLY ENHANCED SOIL VAPOR EXTRACTION	1.7	YES	8.6
5.2 EX-SITU SOIL WASHING	1.7	YES	15.7
5.9 EX-SITU BIOPILES	1.7	YES	1.1

* ALGORITHM IS BASED ON GUIDANCE FROM THE FRTR REMEDIATION TECHNOLOGIES SCREENING MATRIX AND REFERENCE GUIDE, VERSION 44.0 (JAN 2002)

** RANKING RANGE IS FROM 2.0 (MOST APPLICABLE) TO 0.0 (LEAST APPLICABLE)

*** BASED ON IDEAL EFFICIENCY FACTORS. CHEMICAL FOR WHICH THE REMEDIATION OBJECTIVE IS NOT ACHIEVED ARE LISTED IN PARENTHESIS

**** REMEDIAL TIME ESTIMATES BASED ON EQUATIONS PRESENTED IN PUBLIC DOMAIN LITERATURE (E.G. GWRTAC, USEPA, FRTR, ITRC AND AFCEE)

GWRTAC- GROUND WATER REMEDIATION TECHNOLOGIES ANALYSIS CENTER
USEPA- UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
FRTR- FEDERAL REMEDIATION TECHNOLOGIES ROUNDTABLE

1 OF 2 13.5 X 11 IN

FIG.16c CONT.

WEBEDMS - MICROSOFT INTERNET EXPLORER
450

COMPREHENSIVE REMEDIAL TECHNOLOGY SCREENING RESULTS

REGION OF INTEREST (ROI): TEST SITE AREA 2
 TIME INTERVAL: FROM 8/1/1985 12:00:00 PM TO 7/3/2003 12:00:00 PM
 USERNAME: SQT
 ROI CREATED DATE: JAN 13 2004 10:58 AM
 PLUME ID: 66
 MEDIA: SOIL
 IMPACT AREA: 54173.324 M2
 IMPACT VOLUME: 310025.1 M3
 CONTAMINANT TYPE: FUELS, HALOGENATED VOCs

APPLICABLE REMEDIAL TECHNOLOGY	RANKING (2-0)	TECHNOLOGY LIMITATIONS	ROUGH ORDER OF MAGNITUDE TIME ESTIMATE (YEARS)	UNIT PRICE	UNIT	COST ESTIMATE (UNIT PRICE * IMPACT VOLUME)
4.10 CONTAINMENT CAPPING	2.0	NO (BENZENE, TRICHLORO ETHYLENE (TCE))	0.4	35.50	M2	\$1,923,153
4.1 IN-SITU SOIL VAPOR EXTRACTION	2.0	YES	22.8		M3	
4.6 IN-SITU BIOVENTING	2.0	YES	N/A		M3	
4.7 IN-SITU ENHANCED BIOREMEDIATION	2.0	YES	N/A		M3	
4.8 IN-SITU NATURAL ATTENUATION	2.0	YES	N/A		M3	
5.1 EX-SITU SOIL VAPOR EXTRACTION	2.0	YES	0.1	150.25	M3	\$46,581,271
5.6 EX-SITU INCINERATION	2.0	YES	7.1		M3	
5.7 EX-SITU THERMAL DESORPTION	2.0	YES	18.3		M3	
4.5 IN-SITU THERMALLY ENHANCED SOIL VAPOR EXTRACTION	1.7	YES	8.6		M3	
5.2 EX-SITU SOIL WASHING	1.7	YES	15.7		M3	
5.9 EX-SITU BIOPILES	1.7	YES	1.1		M3	

FIG. 16d

470

WEBEDMS - MICROSOFT INTERNET EXPLORER

REGION OF INTEREST (ROI) INFORMATION	
REGION OF INTEREST (ROI):	TEST SITE AREA 2
TIME INTERVAL:	FROM 8/1/1985 12:00:00 PM TO 7/3/2003 12:00:00 PM
USERNAME:	SQT
ROI CREATED DATE:	JAN 13 2004 10:58 AM
REMARK:	
MEDIA TYPE:	SOIL

472

REGION OF INTEREST (ROI) REPORTS
INITIAL SCREENING PDF FILE (NON-NAPL)
INITIAL SCREENING LOG FILE (NON-NAPL)
COMPREHENSIVE SCREENING PDF FILE (NON-NAPL)
COMPREHENSIVE SCREENING LOG FILE (NON-NAPL)

474

FIG. 16e

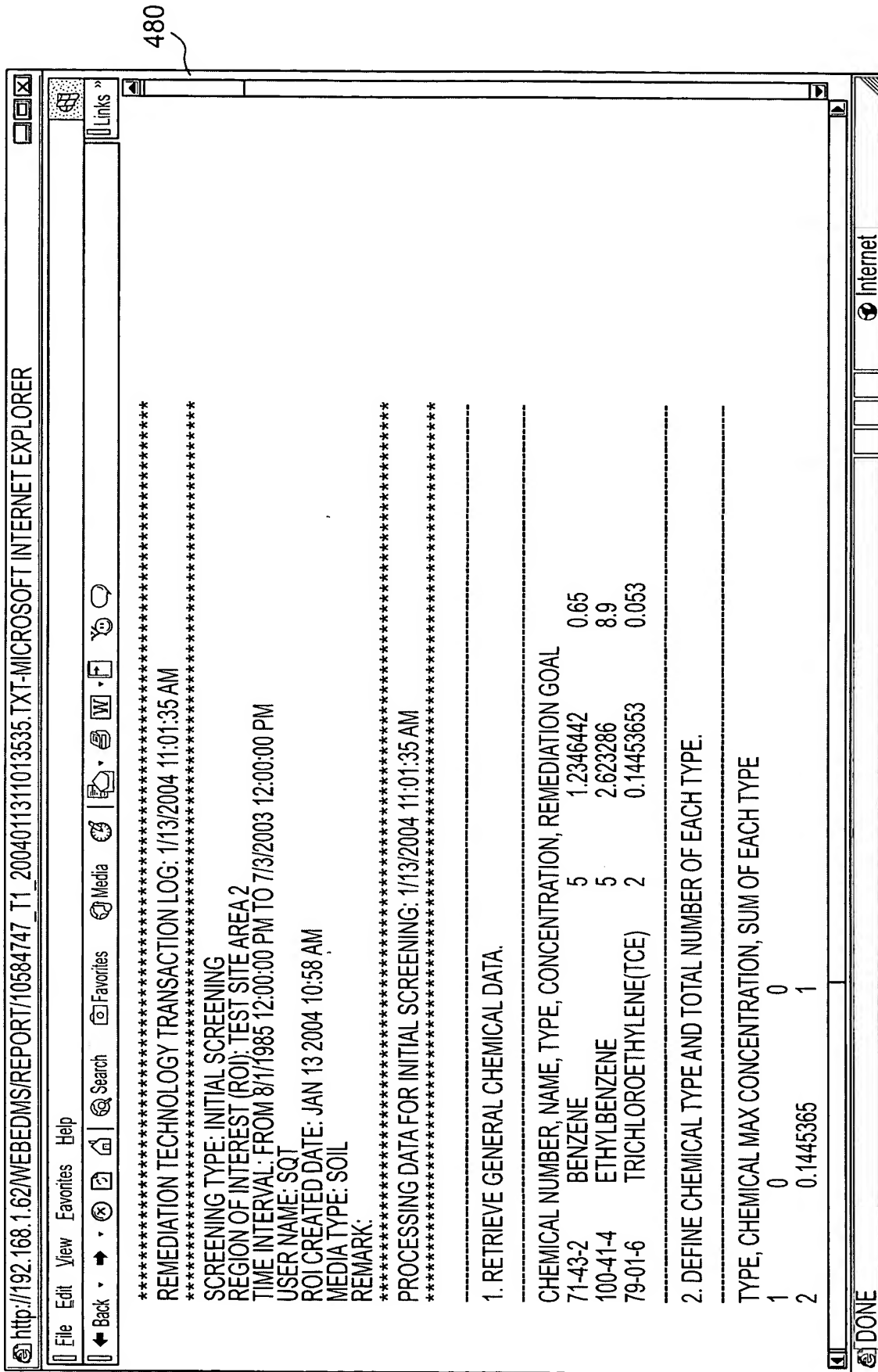


FIG. 16f

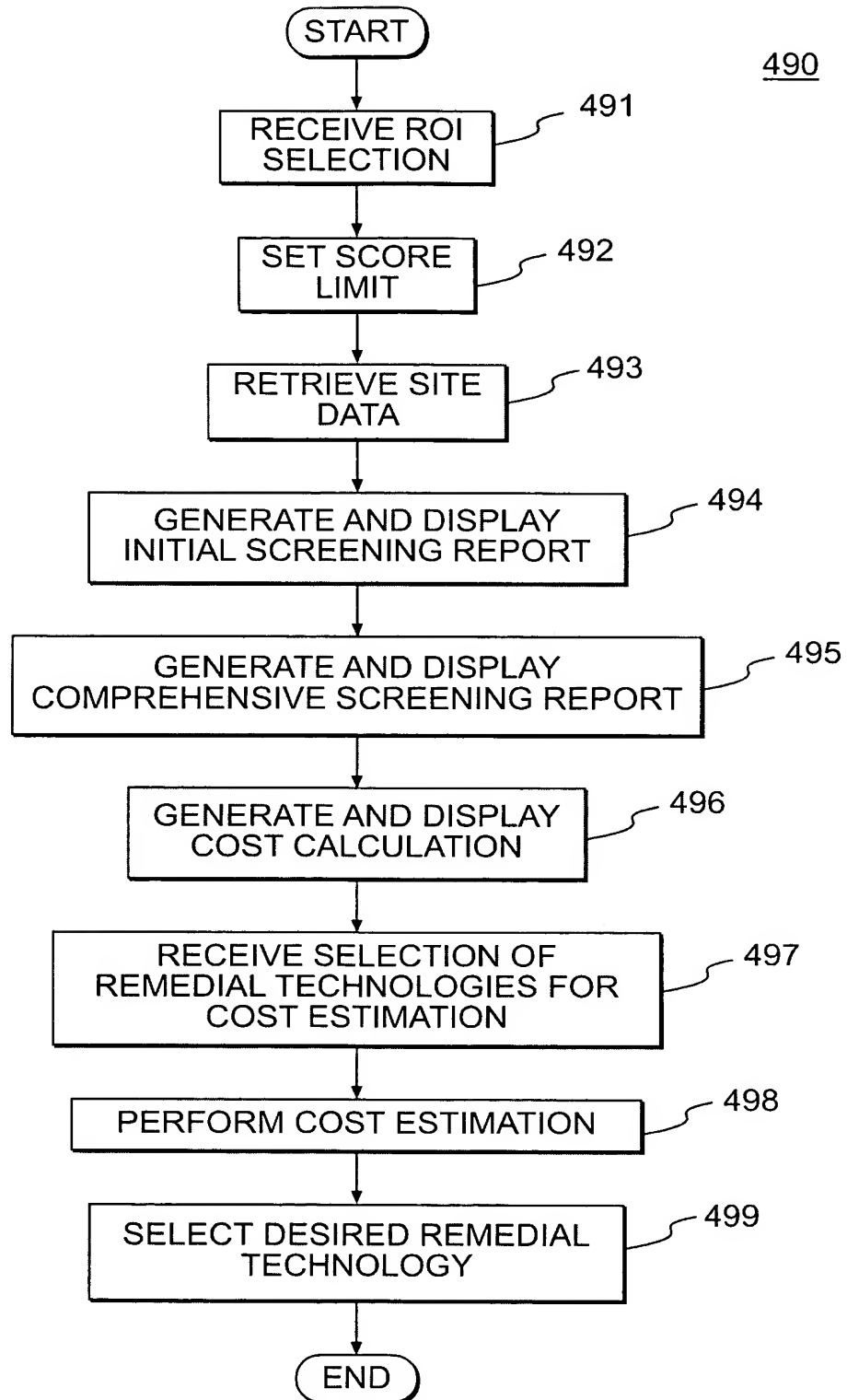


FIG. 17